



Opinion Dynamics

Shelton<sup>Grp</sup>

# ENERGY UPGRADE CALIFORNIA BRAND ASSESSMENT STUDY

## Final

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# 1. EXECUTIVE SUMMARY

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Under contract with the California Center for Sustainable Energy (CCSE), Opinion Dynamics conducted a 2012 brand assessment for the statewide Energy Upgrade California marketing and outreach campaign. The California Public Utilities Commission (CPUC) selected CCSE to coordinate the statewide marketing, education, and outreach campaign using the Energy Upgrade California brand in the 2013-2014 program cycle.<sup>1</sup>

In 2010-2012, the Energy Upgrade California brand was used by the Investor Owned Utilities (IOUs), local governments, municipalities, building contractors and the California Energy Commission to promote the Statewide Whole House Retrofit Program<sup>2</sup> through multiple marketing channels including mass media, direct mail, email, website banner ads, 2-hour workshops, grassroots community events and more. Much of the marketing attempted to channel residents to the Energy Upgrade California website ([www.energyupgradeca.org](http://www.energyupgradeca.org)) where residents could learn more about the program design, find a participating contractor and rebate information.

The brand will transition in 2013 from its current role, promoting home performance assessments and retrofits, to serve as the statewide energy management brand for residential and small business consumers. This brand assessment study provides insights to inform Energy Upgrade California positioning, marketing and outreach efforts in 2013 and 2014.

The overall research objectives for this study include the following:

- Establish baseline consumer brand awareness (aided and unaided) for the Energy Upgrade California brand. The objective here is to provide CCSE with a starting point for brand awareness.
- Understand consumer associations with the Energy Upgrade California brand.
- Understand consumer awareness/knowledge of energy management and bill savings associated with Energy Upgrade California and other IOU supported opportunities, and barriers to/inclination to take action on those opportunities.

To address the research objectives, we conducted four surveys: 2,000 general residential telephone surveys; 631 small commercial telephone surveys, 518 with a residential Internet panel, and 137 telephone/email surveys with Building Performance Institute (BPI) certified contractors. The sample

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<sup>1</sup> Decision Providing Guidance on 2013-2014 Energy Efficiency Portfolios and 2012 Marketing, Education, and Outreach, Decision 12-05-015 (California Public Utilities Commission May 10, 2012).

<sup>2</sup> The Whole House Retrofit Program is an initiative that encourages residents to undertake deep home retrofits that lead to substantial energy savings, measures often include building envelope measures and HVAC system upgrades. The program required a home energy assessment prior to determine what retrofits are needed. The program can be costly to homeowners as it has two components, the basic and advanced tracks. Basic jobs averaged \$5K, and advanced jobs averaged \$13K between 2010 and 2012. IOUs and ARRA funding funneled to local governments offset the cost by offering incentives that were up to \$10,000 in some jurisdictions. Incentives are determined by the estimated energy savings resulting from the upgrades.



design and weighting for this study, which accounted for three specific regions in CA, and four key ethnic groups in the residential market (White, African-American, Asian-American and Hispanics), ensured that results could be extrapolated at a statewide level.

### Residential Market Key Findings

Prior to the fielding of this study, much of the marketing to residential customers attempted to channel residents to the Energy Upgrade California website ([www.energyupgradeca.org](http://www.energyupgradeca.org)) where residents could learn more about the program design, find a participating contractor and rebate information. In addition, some local governments promoted low-income weatherization programs under the Energy Upgrade California brand. These low-income programs offered much of the same services as the Whole House program but the services were free to the customer if they met certain income level requirements. As such, there was an assumption that if people had heard of the Energy Upgrade California brand at the time of this study then they likely heard about it as part of marketing for the Whole House or low-income weatherization programs and would associate the brand with those initiatives and the messages they used such as: saving energy and money, treating the house as a system, home energy assessments or audits, saving the environment, home comfort, installing building envelope measures such as insulation, getting rebates for home upgrades, and/or deep home retrofits or upgrades. The whole house marketing materials are presented in Appendix B.

Survey findings show that in the general residential market Energy Upgrade California brand awareness and familiarity is low, as is awareness and usage of the Energy Upgrade California website.

- Less than 1% of the general residential market mentioned the Energy Upgrade California brand unaided in both the telephone and Internet surveys. Overall, most residents (74%) were unable to name any brand, campaign, or initiative that encourage people in CA to save energy.
- Less than one-fifth (17%) of the general residential market has heard of the Energy Upgrade California brand (aided by name only). This percentage is lower among Internet panel respondents (9%).
- While 17% say they have heard the Energy Upgrade California brand name, the research shows that most of them do not know much about it. Most of the “aware” respondents rated their familiarity with the Energy Upgrade California brand name quite low. Nearly half of those who reported that they had heard of the name indicated that they had no real knowledge of the initiative. The 17% who were aware breaks down as follows: About 8% of the total population have heard only of the name, slightly over 6% have some knowledge, and just over 2% self-report being knowledgeable about the initiative. (We note, however, that this indicates awareness and familiarity with the Energy Upgrade California Whole House program, as that was the program that was offered at the time of our study.)

- Overall, when we consider awareness across the various levels of familiarity, we see that statewide awareness and knowledge of the brand is low.<sup>3</sup> The same is true across ethnic groups and regions; however, Hispanics and African-Americans appear to be more aware and knowledgeable than White or Asian-American populations. It is possible that this may be due to the nature of the Energy Upgrade California Whole House program marketing throughout 2011 and 2012 where local governments and IOUs were targeting specific communities. In addition, some low-income weatherization program marketing was done under the Energy Upgrade California brand prior to this survey and we found that many of the Hispanic and African-American respondents were below the 150% federal poverty guideline (the income qualification level for the low-income weatherization programs).

Brand associations are generally weak overall (i.e., not tied to any one area or message) and are consistent between those who claim to be aware of Energy Upgrade California and those who do not. While those who are not aware are “uninformed,” their responses about associations with the brand are still informative for the campaign implementers, as it provides insights on the types of concepts that are associated prior to the launch of the effort. Responses to both the telephone survey and Internet panel varied widely in the open-ended question about associations with the Energy Upgrade California name, making it difficult to find themes. The top associations with the brand were to save energy and money generally and specifically, to upgrade to energy efficient appliances or make general home improvements to save energy.

The findings in this study also indicate that given the associations with Energy Upgrade California, the brand is able to expand beyond the Whole House program, and even beyond energy efficiency into solar, climate change, and other related topics. In fact, for many (given that their level of knowledge is limited) the name already covers many of the energy management areas that the Energy Upgrade California wants to promote in the future.

In designing the research, CCSE expressed that one of their objectives is to have Energy Upgrade California be thought of as a “statewide resource for energy management information.” Energy management is not a common phrase or term, and thus our research also explored associations with the phrase “energy management” as well as energy management knowledge. Awareness and knowledge of energy management opportunities is limited. The study covered six main opportunities that were described in colloquial terms in the survey. Respondents are most knowledgeable about solar and demand response concepts, and least knowledgeable about home energy assessments, smart meters, and time of use payment options. Concepts, descriptions, awareness, and knowledge levels out of the total population are shown below:

- Distributed generation: The opportunity to use alternative energy such as solar panels on your roof (79% aware, 21% very knowledgeable)
- Demand response communication alerts: Communication alerts that ask you to reduce electricity use at critical times like on the hottest summer afternoon (78% aware, 26% very knowledgeable)

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<sup>3</sup> This finding is consistent across both the telephone survey and Internet panel.

- Utility rebate programs: Rebates offered through your utility for energy-related home improvements (72% aware, 18% very knowledgeable)
- Home energy assessments: Online or in-home energy assessments, that give recommendations on ways to decrease your energy use (55% aware, 11% very knowledgeable)
- Smart meters: New meters that allow you to view your home's daily energy use information (54% aware, 11% very knowledgeable)<sup>4</sup>
- Time of use rates: Utility payment plans that allow you to pay a lower rate for electricity during early morning and evening hours, and a higher rate during the day (50% aware, 14% very knowledgeable)

### Business Market Key Findings

At the time of this study, there had been no targeted marketing campaigns to raise awareness of the Energy Upgrade California brand among small businesses in California.<sup>5</sup> As a result, while those in the small business market may have had limited exposure to Energy Upgrade California as individuals, the expectation was that awareness of Energy Upgrade California among small businesses would be extremely low. Therefore, the small business survey provided a valuable opportunity to obtain a clear snapshot of Energy Upgrade California awareness prior to the business campaign's development and launch.

Given CCSE's interest in expanding awareness and knowledge of energy management topics, the survey also provided a channel through which to gather data on current levels of familiarity and depth of knowledge related to smart meters and time of use pricing among other areas.

As expected, survey findings show that Energy Upgrade California brand awareness is low among small businesses in California, and lower among small businesses than among the residential population.

- Less than 1% of small businesses mentioned Energy Upgrade California unaided when asked what campaigns, brands, and initiatives they had heard of in the last year that encourage businesses to reduce energy use in California.
- 15% of small businesses have heard of the Energy Upgrade California brand (aided by name only).

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<sup>4</sup> The research team and CCSE discussed the terminology that would best suit the respondents' knowledge in terms of "smart meters". It was collectively decided to not use the term "smart meters" and instead refer to them as "new meters" and describe their capabilities to respondents as this was likely the terminology that most respondents would understand.

<sup>5</sup> This study defines "small businesses" as firms with less than 100 employees and less than \$14 million in annual revenue.

- There are differences in aided awareness across geographic regions of the state with higher levels of awareness among small businesses in Northern California (14%) and the greater Los Angeles area (18%) than in San Diego (8%).
- There are no differences in aided Energy Upgrade California awareness based on business type or facility ownership status (lease vs. own).
- While brand associations are weak, the majority of small businesses aware of Energy Upgrade California think that it already offers solutions for businesses in addition to homeowners (73%), indicating that the brand can be expanded to this population.
- In general, knowledge of specific energy management opportunities is limited, but small business customers in the Northern part of the state have significantly higher levels of awareness across multiple topic areas than businesses elsewhere in California.

### **Contractor Market Key Findings**

Contractors have been a large marketing channel for the Energy Upgrade California brand as part of the Whole House Program and are an intended marketing channel in the future. We conducted a survey with contractors that are participating in the Whole House program or have been targeted by the Whole House program for participation. These contractors should have been exposed to Energy Upgrade California, and they may have used the Energy Upgrade California brand for marketing purposes and have an impression of it. As such, CCSE was interested in their perspective of the Energy Upgrade California brand, how they have used the brand thus far, how the future Energy Upgrade California umbrella brand might help their business, and their opinion of their customers' perspective of the brand.

Overall findings from surveys with contractors include the following:

- As expected given the targeted group of contractors for this study, BPI-certified contractors are very knowledgeable of Energy Upgrade California; 95% are aware of the brand and 81% are very knowledgeable of it. Energy Upgrade California website awareness is also high (87%).
- Most contractors associate this brand with the Whole House program. CCSE has expressed that they would like the name to be expanded so that contractors and customers recognize it as a resource for energy management. As expected, very few contractors (3%) associate the brand with a resource for energy management at this time. When asked what customers think of the Energy Upgrade California brand, contractors say customers mostly think of Energy Upgrade California as a rebate program.
- CCSE was interested in how often customers ask contractors for a website to help them learn about ways to save energy. Results show that some (59%) customers do ask for a website and when they do, contractors most often refer them to the Energy Upgrade California website or a utility website. Of contractors who were aware of the Energy Upgrade California website, only 21% recommend it very often, and 33% said they never refer customers to the Energy Upgrade California website.

- About half of contractors (49%) use the Energy Upgrade California name it relates specifically to the Whole House program in marketing and sales (61% of participants and 23% of non-participants).
- Most contractors said the brand has been somewhat helpful (51%) or not helpful (32%) in procuring whole house retrofit business.

## **Conclusion**

In conclusion, there is an open door for California to change and expand the Energy Upgrade California brand from the general market's perspective, given that many people are unaware of it and those who are aware of it are not strongly connected to Whole House program. In addition, most residents think the brand generally relates to broad concepts of saving energy and making changes to homes or behaviors that save energy.

This is also true for the small business community. Given the limited Energy Upgrade California awareness among small businesses, and their loose associations with the brand (e.g. savings energy and upgrading energy sources and equipment), CCSE has the freedom to redefine the brand for this market. In particular, a key asset in expanding the brand is the sense among small businesses that Energy Upgrade California offers solutions to businesses, as well as residential customers.

Specifically for contractors, we recommend that the future Energy Upgrade California campaign engage contractors in the transition process so they are aware of the change. It will be important to clearly communicate the value of the new Energy Upgrade California initiative to contractors and their customers so that contractors stay engaged in the initiative and continue to help educate customers.

## 2. STUDY OVERVIEW & OBJECTIVES

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Under contract with the California Center for Sustainable Energy (CCSE), Opinion Dynamics conducted a 2012 brand assessment for the statewide Energy Upgrade California marketing and outreach campaign. The California Public Utilities Commission (CPUC) selected CCSE to coordinate the statewide marketing, education, and outreach campaign using the Energy Upgrade California brand in the 2013-2014 program cycle.<sup>6</sup>

In 2010-2012, the Energy Upgrade California brand was used by the Investor Owned Utilities (IOUs), local governments, municipalities, building contractors and the California Energy Commission to promote the Statewide Whole House Retrofit Program<sup>7</sup> through multiple marketing channels including mass media, direct mail, email, website banner ads, 2-hour workshops, grassroots community events and more. Much of the marketing attempted to channel residents to the Energy Upgrade California website ([www.energyupgradeca.org](http://www.energyupgradeca.org)) where residents could learn more about the program design, find a participating contractor and rebate information.

The brand will be transitioning in 2013 from its current focus on the Whole House program, where it was used to promote home performance assessments and retrofits, to a broader effort as the statewide energy management brand for residential and small business consumers. Prior to this transition, this brand assessment study was conducted to inform Energy Upgrade California positioning, marketing, and outreach efforts in 2013 and 2014. Because this study was conducted in December 2012-January 2013 to help establish a baseline for the future Energy Upgrade California brand initiative, CCSE had not yet developed a marketing plan or any specific messaging, strategies or marketing objectives. Thus, the study did not include any assessments of these future campaign elements. CCSE is currently finalizing its marketing plan for the Energy Upgrade California initiative and expects to finalize the plan by March 2013.

The overall research objectives for this study include the following:

- Establish baseline consumer brand awareness (aided and unaided) for the Energy Upgrade California brand. The objective here is to provide CCSE with a starting point for brand awareness.
- Understand consumer associations with the Energy Upgrade California brand.

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<sup>6</sup> Decision Providing Guidance on 2013-2014 Energy Efficiency Portfolios and 2012 Marketing, Education, and Outreach, Decision 12-05-015 (California Public Utilities Commission May 10, 2012).

<sup>7</sup> The Whole House Retrofit Program is an initiative that encourages residents to undertake deep home retrofits that lead to substantial energy savings, measures often include building envelope measures and HVAC system upgrades. The program required a home energy assessment prior to determine what retrofits are needed. The program can be costly to homeowners as it has two components, the basic and advanced tracks. Basic jobs averaged \$5K, and advanced jobs averaged \$13K between 2010-2012. IOUs and ARRA funding funneled to local governments offset the cost by offering incentives that were up to \$10,000 in some jurisdictions. Incentives are determined by the estimated energy savings resulting from the upgrades.

- Understand consumer awareness/knowledge of energy management and bill savings associated with Energy Upgrade California and other IOU supported opportunities, and barriers to/inclination to take action on those opportunities.

To fulfill the objectives of this study, we conducted four separate data collection efforts including:

- A residential general population survey of 2,000 residents
- A small business survey of 631 small commercial businesses
- A contractor survey of 137 BPI-certified contractors serving residential and small commercial businesses in California
- An Internet panel survey of 518 residents

Data collection instruments for each survey were designed to address the overall research objectives and can be found in Appendix B.

## **2.1      *ACKNOWLEDGEMENTS***

Opinion Dynamics would like to acknowledge the numerous organizations and individuals that supported the construction of sample designs and survey instruments throughout this study. A special thanks to Pacific Gas & Electric, Southern California Edison, Southern California Gas, San Diego Gas & Electric, and the California Public Utilities Commission for their insightful contributions to this study.



### 3. METHODS & SAMPLE DESIGN

Data collection methods and sampling were designed to result in representative samples of target consumers throughout California including the residential, small business, and contractor targets. In addition, research was conducted to ensure representation of three distinct regions in California. Figure 1 shows the three distinct regions that are mentioned throughout this report and the naming convention used for each.

Figure 1. Map of California Regions by County



The regions were created to allow this study to be both a statewide study and include the four Investor-Owned Utilities (IOUs) and non IOU territories so that these results can inform future program efforts that may be marketed under the Energy Upgrade California brand. The Northern California region includes Pacific Gas & Electric (PG&E) counties, as well as counties east and north



of its territory. The Greater Los Angeles region includes Southern California Edison (SCE) and Southern California Gas counties as well as counties east of their territories. The Greater San Diego region includes San Diego Gas and Electric counties. We recognize that multiple IOUs may serve some counties and that many other non-IOU companies provide electric and gas service to customers in these regions. However, in collaboration with the IOUs, we found that carving up the state into three regions was the best option, allowing this study to be beneficial to the IOUs and to achieving the goal of having statewide representation.

## **3.1 DATA COLLECTION METHODS**

### **3.1.1 GENERAL POPULATION SURVEY**

Opinion Dynamics conducted a residential general population survey of 2,000 residents in December 2012 and early January 2013. The sample design for this survey was constructed to meet the following goals:

- Represent the population of Californians 21 years or older across the state by region<sup>8</sup>
- Be able to report awareness levels on four ethnicity-language groups (White, African-American, Asian-American and Hispanic) and three geographic regions
- Be able to report both baseline and change in awareness for each group
- Be able to detect at least a 5 percentage point change in awareness for each group after a media campaign
- Achieve confidence and precision of 90%/5% for baseline and 90%/10% for change
- Be able to detect a 2 percentage point Statewide change in awareness after an Energy Upgrade California initiative

As such, quota groups were set for the four ethnic groups and three regions. Quotas were also set for the number of respondents over the age of 55 to control for age bias. Interviews with the Hispanic population were conducted in both English and Spanish. The table below shows the population and sample sizes for each ethnic-language group and in total<sup>9</sup>.

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<sup>8</sup> We divided California into three regions: Northern California, Greater Los Angeles, and Greater San Diego. Appendix A shows the breakdown of counties by region.

<sup>9</sup> The study surveyed the Hispanic English and Spanish speaking populations to ensure that future analysis may be conducted with each group separately. The number of surveys completed statewide with each sub-segment meets the desired confidence and precision of 90%/5% for each sub-segment for baseline results. We completed 371 surveys in English with Hispanics, achieving +/- 4.2%, and 211 surveys in Spanish achieving +/- 5.7% in case there is interest in looking at their data separately in the future.

**Table 1. Residential General Population Study Ethnic Group Sample Sizes**

Weights	White and All Others	African American	Asian American	Hispanic (English & Spanish)	Totals
Total Population	18,823,298	2,362,674	4,006,796	12,066,046	37,258,813
Total Sample Size	809	371	238	582	2,000
Precision at 90% C.I. +/-	2.9%	4.3%	5.3%	3.4%	1.8%

The following table shows the sample sizes for each region and ethnic group.

**Table 2. General Population Survey Ethnic and Region Sample Sizes**

	Weights	White and All Others	African American	Asian American	Hispanic (English)	Hispanic (Spanish)	Totals
Sample	Northern	312	100	105	92	58	667
	Greater Los Angeles	314	237	96	195	111	953
	Greater San Diego	183	34	37	84	42	380

Both landline and cell phone listed samples were purchased to conduct this study. The survey averaged 15.3 minutes. We called a total of 142,869 telephone numbers and achieved a response rate of 2.3% and a cooperation rate of 9.6%.

The survey response rate is the number of completed interviews divided by the total number of potentially eligible respondents in the sample. We calculated the response rate using the standards and formulas set forth by the American Association for Public Opinion Research (AAPOR).<sup>10</sup> For various reasons, we were unable to determine the eligibility of all sample units through the survey process and chose to use AAPOR Response Rate 3 (RR3). RR3 includes an estimate of eligibility for these unknown sample units. The formulas used to calculate RR3 are presented below. The definitions of the letters used in the formulas are displayed in the Survey Disposition tables below.

$$E = (I + R + NC) / (I + R + NC + e)$$

$$RR3 = I / ((I + R + NC) + (E*U))$$

We also calculated a cooperation rate, which is the number of completed interviews divided by the total number of eligible sample units actually contacted. In essence, the cooperation rate gives the

<sup>10</sup> *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*, AAPOR, 2011. [http://www.aapor.org/AM/Template.cfm?Section=Standard\\_Definitions2&Template=/CM/ContentDisplay.cfm&ContentID=3156](http://www.aapor.org/AM/Template.cfm?Section=Standard_Definitions2&Template=/CM/ContentDisplay.cfm&ContentID=3156)

percentage of participants who completed an interview out of all of the participants with whom we actually spoke. We used AAPOR Cooperation Rate 1 (COOP1), which is calculated as:

$$\text{COOP1} = I / (I + R)$$

**Table 3. General Population Residential Survey Response and Cooperation Rates**

Result	Phone Numbers
Total phone numbers used	142869
I=Complete Interviews	2000
P=Partial Interviews	92
R=Refusal and break off	18848
NC=Non Contact	38424
O=Other	4888
e=estimated proportion of cases of unknown eligibility that are eligible	
Estimate of e is based on proportion of eligible households among all numbers for which a definitive determination of status was obtained (a very conservative estimate).	0.498
UH=Unknown household	42809
UO=Unknown other	0
<b>Response Rate</b>	<b>2.3%</b>
<b>Cooperation Rate</b>	<b>9.6%</b>

### 3.1.2 RESIDENTIAL INTERNET PANEL SURVEY

Opinion Dynamics fielded an Internet survey with 518 adult California residents in December 2012 and January 2013. The goal of the survey was to gather information on brand awareness, associations, and information seeking to supplement the Residential General Population survey. The Internet Panel provided an opportunity to show respondents the Energy Upgrade California logo and other marketing collateral.

The sample for this data collection effort came from GfK Knowledge Networks, which maintains a probability-based, non-volunteer access panel. At the outset, a representative sample is selected based on California's Current Population Survey (CPS) benchmarks and everyone in this selected sample is invited to take the survey. In addition to drawing a representative sample in terms of demographics, the team set quotas by region based on the proportion of California adults in each to ensure that sufficient data were available in all three regions. The table below summarizes the number of completes by region.

**Table 4. Internet Panel Completes**

Region	Population (millions)	Completes
Northern CA	14,369	231
Greater LA	19,615	243
San Diego	3,270	44
<b>Total</b>	<b>37,254</b>	<b>518</b>

The following table presents the sample disposition and response rate.

**Table 5. Internet Panel Survey Response Rate**

Disposition	N
Total Emails Sent	1,249
Completes	684
Qualified	553
<b>Incidence (Qualified/Those Screened)</b>	<b>80.8%</b>
<b>Response Rate (Completes/Total Sample)</b>	<b>54.8%</b>

### 3.1.3 SMALL BUSINESS SURVEY

Opinion Dynamics conducted a telephone survey of 631 small businesses in December 2012 and January 2013. The sample design for the small business survey was based on the following criteria:

- Small businesses with 100 employees or less
- Small businesses with less than \$14 million in annual revenue over a three-year period<sup>11</sup>
- Field statewide and include quotas for three defined geographic regions
- Be able to detect changes in awareness within each region over time at a 90% level of confidence and 10% level of precision
- Include businesses housed in spaces that are both business owned and leased

The team established quotas by region based on the population of small businesses in the state. The following table summarizes the population and completed interviews.

**Table 6. Small Business Survey Completes**

Region	Completes	% of Population	% of Completes
Northern CA	214	39%	34%

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<sup>11</sup> Note that these two criteria for small business (100 employees or less, less than \$14 million in annual revenue) are the CPUC's definition of a small business.

Region	Completes	% of Population	% of Completes
Greater LA	250	51%	40%
San Diego	167	10%	26%
<b>Total</b>	<b>631</b>	<b>100%</b>	<b>100%</b>

The sample for this effort was based on Dunn & Bradstreet data purchased by the team. Overall, the survey averaged 6.5 minutes, and we called a total of 30,150 telephone numbers. The following table provides the final survey dispositions for all telephone numbers in the sample.

**Table 7. Disposition of Targeted Small Businesses**

Disposition	N
Completed Interviews (I)	632*
Eligible Non-Interviews	12,710
<i>Refusals (R)</i>	3,850
<i>Telephone Answering Device (NC)</i>	5,495
<i>Mid-Interview terminate (R)</i>	62
<i>Respondent never available (NC)</i>	3,073
<i>Language Problem (NC)</i>	230
Not Eligible (e)	6,343
<i>Fax/Data Line</i>	503
<i>Non-Working</i>	4,083
<i>Wrong Number</i>	371
<i>Business/Government</i>	851
<i>No Eligible Respondent</i>	529
<i>Duplicate Number</i>	6
Unknown Eligibility Non-Interview (U)	10,398
<i>Not dialed/worked</i>	4,285
<i>No Answer</i>	5,979
<i>Busy</i>	102
<i>Call Blocking</i>	32
<b>Total Participants in Sample</b>	<b>30,150</b>

Note: This number differs from the total number of completes presented throughout the report as an additional respondent was removed from the analysis after fielding was completed.

As described earlier, the survey response rate is the number of completed interviews divided by the total number of potentially eligible respondents in the sample. Survey response rates for the small business effort are shown in Table 8 below.

**Table 8. Small Business Survey Response and Cooperation Rates**

AAPOR Rate	Percentage
Response Rate (RR3)	3.2%
Cooperation Rate	13.7%

### 3.1.4 CONTRACTOR SURVEY

Contractors have been a large marketing channel for the Energy Upgrade California brand as part of the Whole House program and are an intended marketing channel in the future. As part of the brand assessment study, we conducted a survey of California contractors to address the following research objectives:

- Brand awareness and associations
- Brand elasticity
- Customer perspectives of Energy Upgrade California
- Usefulness and importance of the brand
  - How the brand is used now
  - How does it help them sell services

This survey targeted contractors that are participating in the Whole House program or have been targeted by the Whole House program for participation. These contractors may have been exposed to Energy Upgrade California, or may have used the Energy Upgrade California brand for marketing purposes and have an impression of it. The sample for this survey came from two sources: the BPI-certified list of contractors in California and the list of contractors listed on the Energy Upgrade California website in December 2012. These contractors are either participating in the Whole House program or have been targeted for participation in the Whole House program<sup>12</sup> and therefore have an impression of the Energy Upgrade California brand now. This targeted group also has a good cross-section of contractor types (including home energy assessors, HVAC contractors, solar, roofing, etc.). Using these sources allows us to replicate this approach in future studies to measure change over time.

Opinion Dynamics fielded a survey of BPI-certified contractors in December 2012. The survey was conducted as a mixed mode—Internet and telephone survey—given that the sample list sources had mixed contact information for contractors. We conducted a census of this population and completed as many surveys as possible in a 3-week period. Contractors received a \$50 incentive for completing the survey. The table below shows that 137 contractors out of 806 completed the survey resulting in a confidence interval of 90% +/- 6%.

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<sup>12</sup> From the 2011 PG&E and SCE Whole House process evaluation we discovered that the program targeted BPI-certified contractors in CA to market the program since they already held the required certification. . . .

**Table 9. Contractor Survey Sample**

	Energy Upgrade California Whole House Participants	Energy Upgrade California Whole House Non- Participants	Total
Population	596	211	806
Completes	94	43	137

The survey averaged eight minutes. The tables below show the response rate for each data collection mode.

**Table 10. Contractor Internet Survey Response Rate**

Internet Survey Disposition	Number
Total Emails Sent	232
Completes	33
Bounce Backs	24
Known Ineligibles (replied with reason)	1
Known Ineligibles (screened out)	0
Refused (replied but refused)	0
Mid-interview Terminates	2
No Response	172
Eligible	207
Ineligible	25
Response rate (completes/eligible)	15.9%

**Table 11. Contractor Telephone Survey Response Rate**

<b>Telephone Survey Disposition</b>	<b>Number</b>
Total phone numbers used	709
I=Complete Interviews	106
P=Partial Interviews	0
R=Refusal and break off	201
NC=Non Contact	222
O=Other	3
e=estimated proportion of cases of unknown eligibility that are eligible (enter a value in line 62 or accept the value in line 62 as a default)	
Estimate of e is based on proportion of eligible households among all numbers for which a definitive determination of status was obtained (a very conservative estimate). This will be used if you do not enter a different estimate in line 62.	0.924
UH=Unknown household (3.1)	101
UO=Unknown other (3.2, 3.9)	0
<b>AAPOR Response Rate</b>	<b>17%</b>
<b>Cooperation Rate</b>	<b>34.5%</b>

Descriptions of our key analytical methods in this study, including the weighting we used for our various samples and our methods for detecting changes over time, are included in Appendix A.



## 4. KEY FINDINGS BY SECTOR

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### 4.1 RESIDENTIAL SECTOR

Throughout this section, we present the main findings from both the Residential General Population Survey and the Residential Internet Panel. Findings are organized by the three main research objectives: Energy Upgrade California awareness, associations, and energy management knowledge.

As noted in the Study Overview Section of this report, from 2010-2012, the Energy Upgrade California brand was developed and used to market California's Statewide Whole House Retrofit Program. The brand was used by the IOUs, local governments, municipalities, building contractors and the California Energy Commission to promote the Whole House program<sup>13</sup> through multiple marketing channels including mass media, direct mail, email, website banner ads, two-hour workshops, grassroots community events and more. Much of the marketing attempted to channel residents to the Energy Upgrade California website ([www.energyupgradeca.org](http://www.energyupgradeca.org)) where residents could learn more about the program design, find a participating contractor and rebate information. In addition, some local governments promoted low-income weatherization programs under the Energy Upgrade California brand. These programs offered much of the same services as the Whole House program but the services were free to the customer if they met certain income level requirements. As such, there was an assumption that if people had heard of the Energy Upgrade California brand at the time of this study then they likely heard about it as part of marketing for the Whole House or low-income weatherization programs and would associate the brand with those initiatives and the messages they used such as: saving energy and money, treating the house as a system, home energy assessments or audits, saving the environment, home comfort, installing building envelope measures such as insulation, getting rebates for home upgrades, and/or deep home retrofits or upgrades. The whole house marketing materials are presented in Appendix B.

#### 4.1.1 ENERGY UPGRADE CA AWARENESS

##### Unaided Brand Awareness

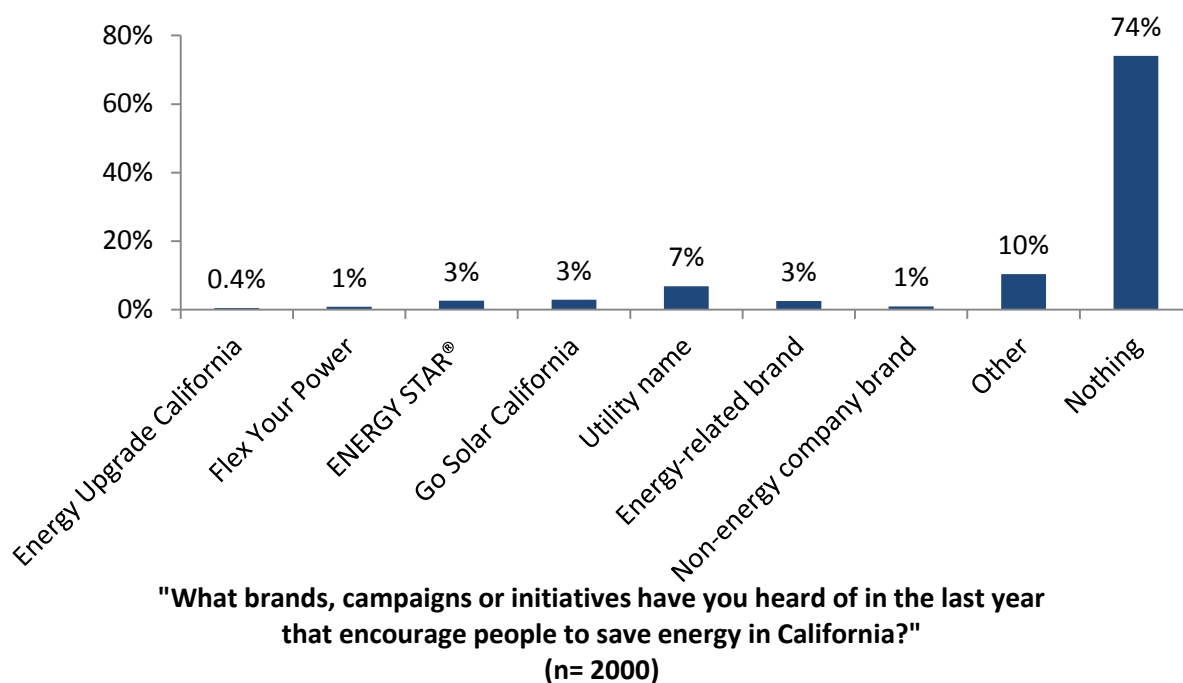
Unaided brand awareness, or top-of mind recall of the name Energy Upgrade California, is almost non-existent. As shown in the figure below, less than 1% of residents mentioned Energy Upgrade California when they were asked to "name the brands, campaigns, or initiatives they had heard of in the past year that encourage people in California to save energy." Note that while this is an

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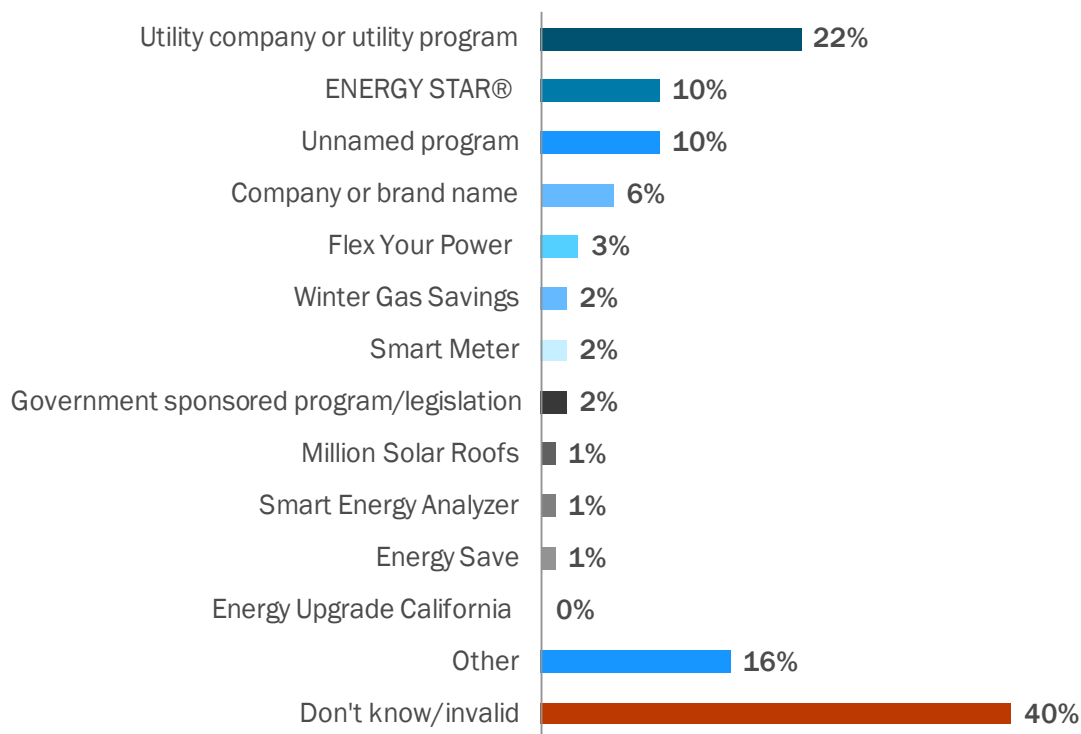
<sup>13</sup> The Whole House Retrofit Program is an initiative that encourages residents to undertake deep home retrofits that lead to substantial energy savings, measures often include building envelope measures and HVAC system upgrades. The program required a home energy assessment prior to determine what retrofits are needed. The program can be costly to homeowners as it has two components, the basic and advanced tracks. Basic jobs averaged \$5K and advanced jobs averaged \$13K between 2010-2012. IOUs and ARRA funding funneled to local governments offset the cost by offering incentives that were up to \$10,000 in some jurisdictions. Incentives are determined by the estimated energy savings resulting from the upgrades.

important area to understand, and would generally be anticipated to increase after a campaign effort, unaided brand awareness can fluctuate. That is, it may go up or down depending on what other campaigns are prominent. Overall, most residents were unable to name any brand, campaigns or initiatives which is very important to acknowledge and consider as the brand development moves forward. Moreover, unaided awareness of Flex Your Power and ENERGY STAR, two prominent energy brands, was also very low despite the fact that these efforts had large media campaigns. The most popular and common responses were utility names and/or utility program names. The “other” category included responses that widely varied and rarely mentioned an actual campaign, brand, or initiative.

**Figure 2. Unaided Brand Awareness (Multiple Response)**



Overall the level of unaided brand awareness from the internet panel was very similar to that found through the telephone survey. Utility brands or programs had the highest rate of recall. In both surveys, ENERGY STAR ranked as one of the specific brands that the greatest percentage of respondents was able to name unaided.

**Figure 3. Unaided Brand Awareness – Internet Panel (Multiple Response)**

**What brands, campaigns or initiatives have you heard of in the last year that encourage people to save or manage energy in California? (Multiple response)**

(n=518)

## Aided Brand Awareness (Name Only)

The survey asked respondents whether they had heard of several campaign names, including the Energy Upgrade California name. The campaign names were listed together and the order of the list was rotated. Overall, 17% of the general population reported that they had heard of the name.

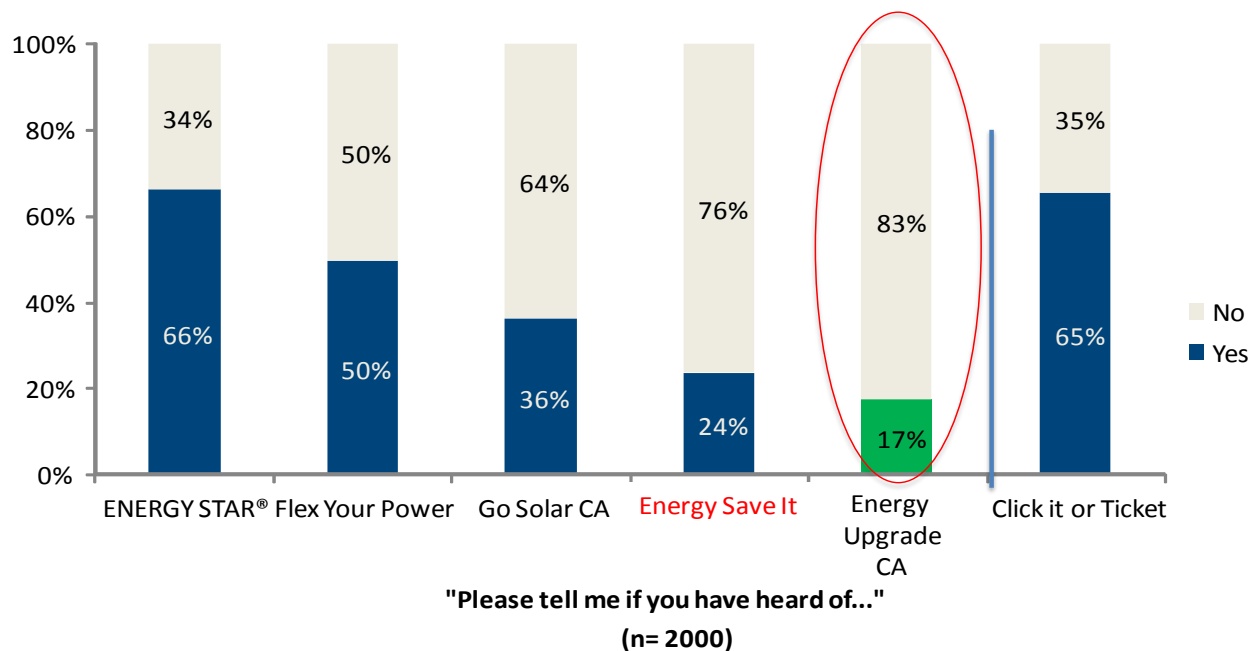
The list also included the Click-It or Ticket campaign, a non-energy social media campaign that has been in California for many years encouraging residents to wear seat belts; as well as ENERGY STAR, an energy brand that has been widely promoted nationally and in California for many years. Both of these brands and campaigns provide some context for the Energy Upgrade California initiative in terms of the level of awareness that they will likely be able to achieve over many years of consistent and pervasive marketing, i.e. the Energy Upgrade California brand may only be able to achieve 66% awareness in the population even after many years of marketing efforts.

Awareness results should be considered within the context of the reliability of self-reported information from any type of survey. Notably, the list of brands included a red herring called “Energy Save It,” and more residents said they were aware of the red herring campaign in this study than Energy Upgrade California. It is possible that many residents were confused by this red herring given that it contained some very common words that residents could hear in other messaging. Like “Energy Save It,” “Energy Upgrade California” also includes very common words that respondents might hear frequently.

It is also possible that there was some positive response bias in this study and that some respondents were not paying attention and answering the question truthfully as it was intended. To mitigate some positive response bias in the analysis of this question, we removed respondents who answered “yes” to all brands listed, including the red herring, on the assumption that they were not distinguishing between brands, but just responding positively throughout. Looking at the verbatim responses of these individuals validated our assumption as many of them did not indicate awareness of the Energy Upgrade California Whole House Program or its messages. In total, 26 respondents were removed from the group that was aware of Energy Upgrade California, which resulted in a change of weighted proportions from 19% aware to 17% aware<sup>14</sup>. CCSE should take these limitations of the measurement into consideration when determining its key metrics to measure over time; however, response bias is expected to stay consistent across time, and so we would still expect to see awareness increase after a large-scale marketing effort.

Given the limitations of this question and the survey research, we speculate that Energy Upgrade California awareness is likely lower than the 17% reported here. In the sections below, we delve deeper into awareness to try to get a better understanding of actual awareness of the Energy Upgrade California Initiative at the time of our study.

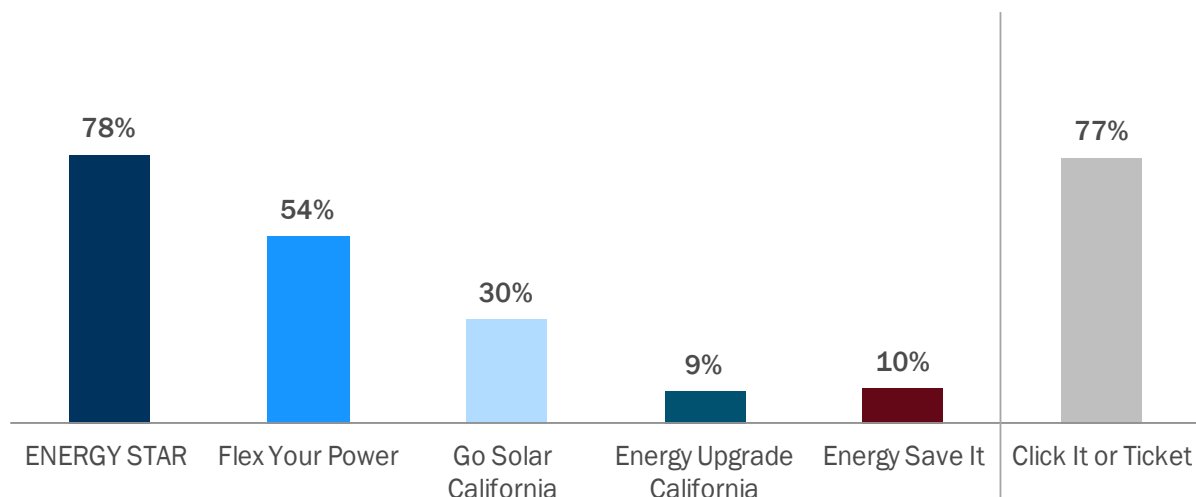
**Figure 4. Percent of Population Aware of Energy Brands (Aided Name Only)**



As shown in Figure 5, awareness of specific energy brands was very similar among Internet panel respondents. Although the percentages were slightly different, the brands ranked in the same order in terms of awareness.

<sup>14</sup> These 26 respondents were included in the rest of the survey questions as they appeared to be paying attention and answering the questions as intended after this series of awareness questions.

Figure 5. Awareness of Energy Brands – Internet Panel )

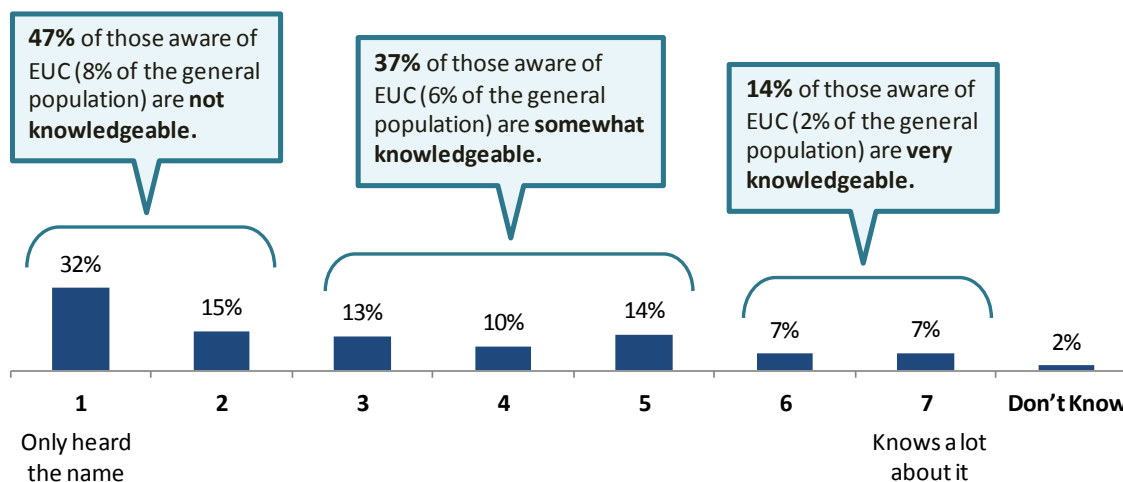


**"Please indicate whether you have heard of each of the following brands, campaigns or initiatives."  
(n= 518)**

## Brand Familiarity

While 17% say they have heard the Energy Upgrade California brand name, the research shows that most of them do not know much about it. As shown in the figure below, most of the "aware" respondents rated their familiarity with the Energy Upgrade California brand name quite low. Nearly half of those who reported that they had heard of the name indicated that they had no real knowledge of the initiative (rating of 2 or less on a 7-point scale). Overall, the 17% who were aware break down as follows: About 8% of the total population has only heard of the name, slightly over 6% have some knowledge, and just over 2% self-report being very knowledgeable about the Initiative. (We note, however, that this indicates awareness with the Energy Upgrade California Whole House program, as that was the program that was offered under the Energy Upgrade California name at the time of our study.)

**Figure 6. Level of Familiarity with Energy Upgrade California among Those Aware of Energy Upgrade California Name**

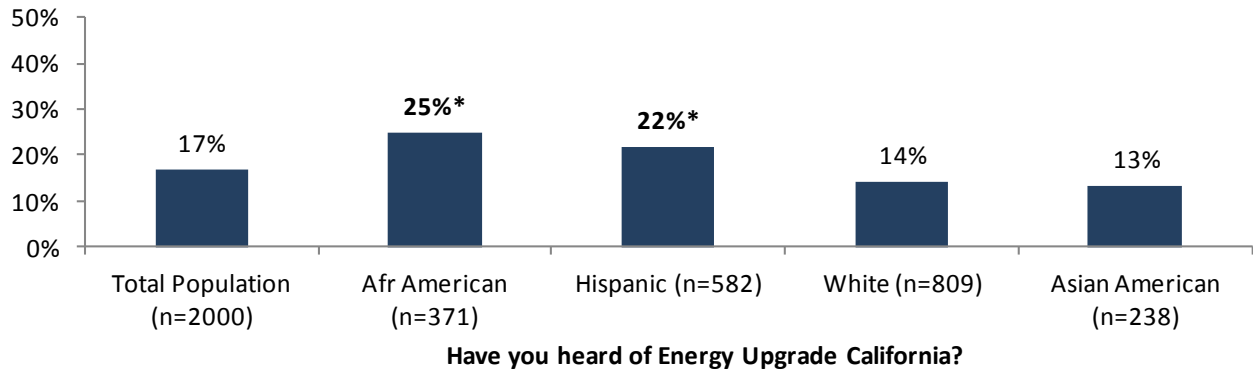


"How familiar are you with the Energy Upgrade California initiative?"  
n=382

## Difference in Awareness by Region and Ethnic Group

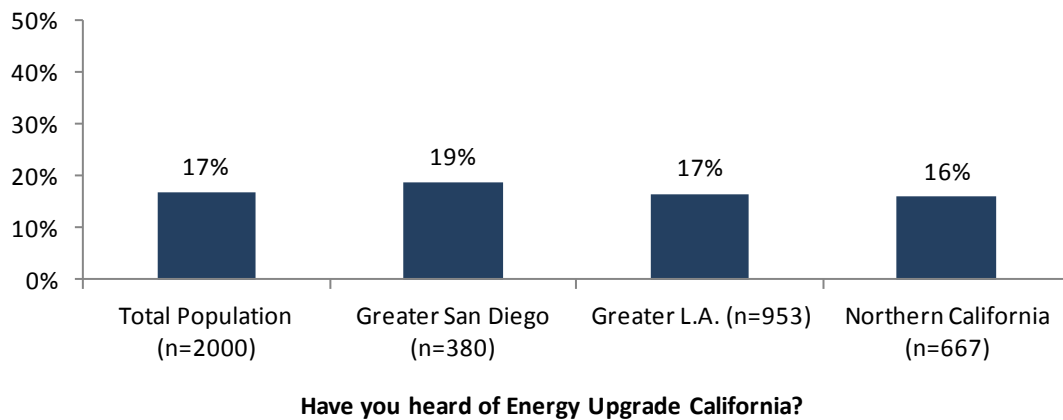
As shown below, we found some differences among the ethnic groups (Figure 7) but did not find differences between the three regions (Figure 8). The higher awareness levels among the African-American and Hispanic populations may be due to some of the marketing efforts in 2011 and 2012 in which local governments targeted specific communities. In addition, some low-income weatherization program marketing was done under the Energy Upgrade California brand prior to this survey (see Appendix B for examples), and we found that many of these Hispanic and African-American respondents were below the 150% of the federal poverty guideline (the income qualification level for the low-income weatherization programs). While some marketing examples may explain the differences in the data, the differences may also be a function of how each ethnic group hears the term Energy Upgrade California, differences in terms of positive response bias, and it may be an anomaly in this study.

**Figure 7. Percent Aware of Energy Upgrade California by Ethnicity**



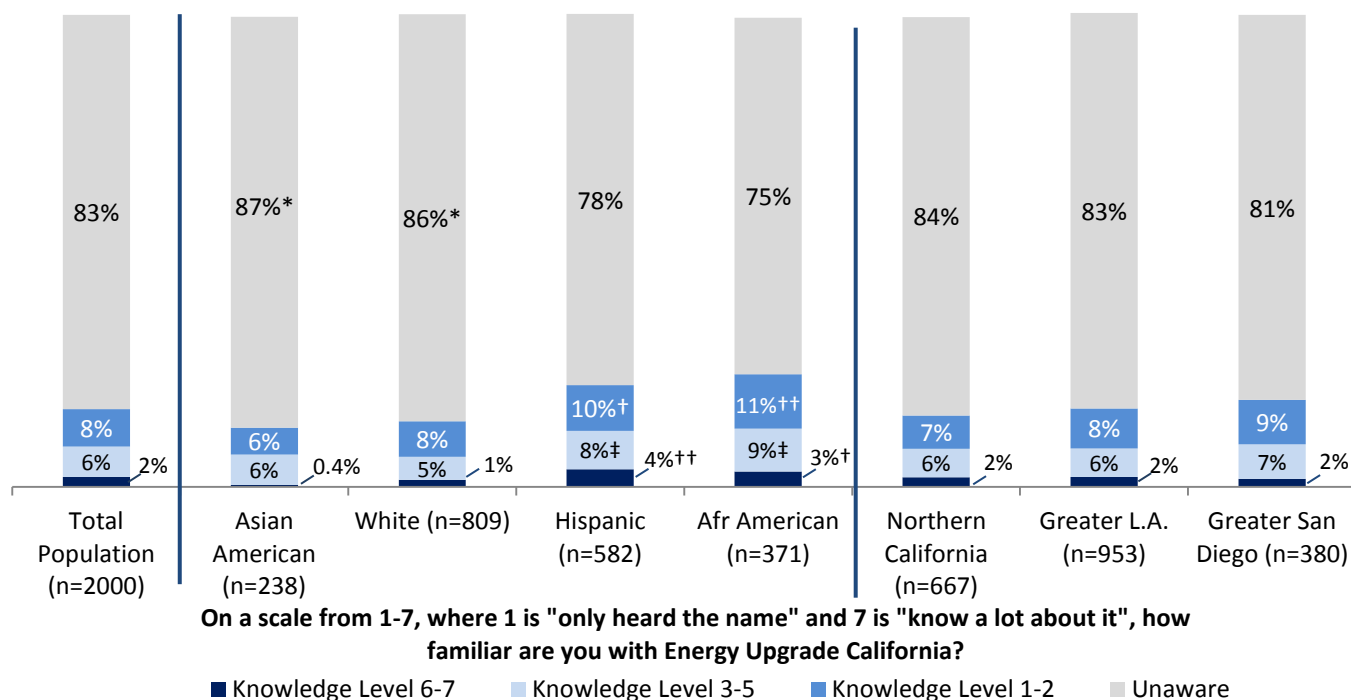
\*indicates percentage is significantly higher than the White and Asian American percentages at the 90% confidence interval.

**Figure 8. Percent Aware of Energy Upgrade California by Region**



Overall, when we consider awareness across the various levels of familiarity, we see that statewide awareness and knowledge of the brand is low. The same is true across ethnic groups and regions; however, Hispanics and African-Americans appear to be more aware than White or Asian-American populations. The figure below shows the awareness and familiarity levels across the various populations that we studied.

Figure 9. Energy Upgrade California Awareness and Knowledge (by Ethnicity and Region)



Note: May not sum to 100% because "Don't Know" responses of 1% or less not shown or due to rounding

\*indicates percentage is significantly higher than African American and Hispanic at the 90% confidence level

† indicates percentage is significantly higher than Asian American at the 90% confidence level

‡ indicates percentage is significantly higher than White at the 90% confidence level

†† indicates percentage is significantly higher than White and Asian American at the 90% confidence level

The Internet panel shows a similar trend. In particular, awareness among the Internet panel respondents was also low, with 89% reporting that they had never heard of the Energy Upgrade California brand. Only 1% said they knew a lot about Energy Upgrade California.

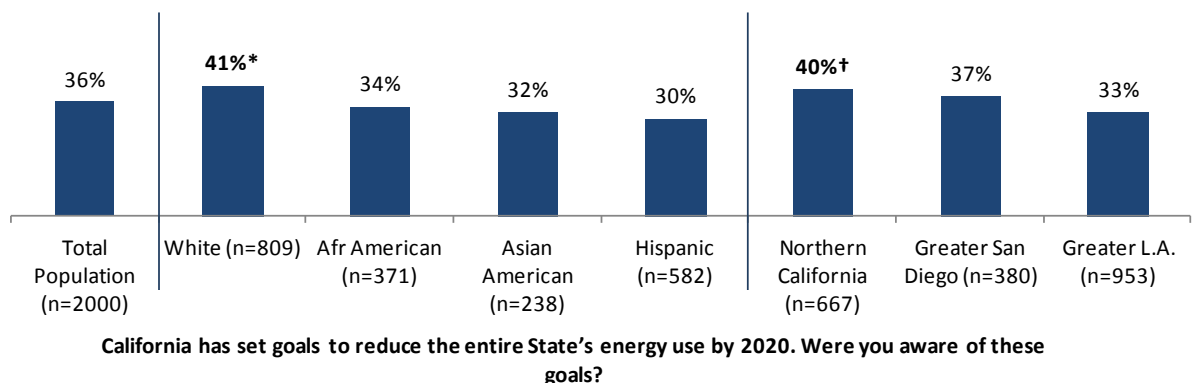


**Figure 10. Energy Upgrade California Awareness and Knowledge – Internet Panel**

Scale is from 1-7, where 1 is “only heard the name” and 7 is “know a lot about it.”

■ Unaware ■ Knowledge Level 1-2 ■ Knowledge Level 3-4 ■ Knowledge Level 5-6

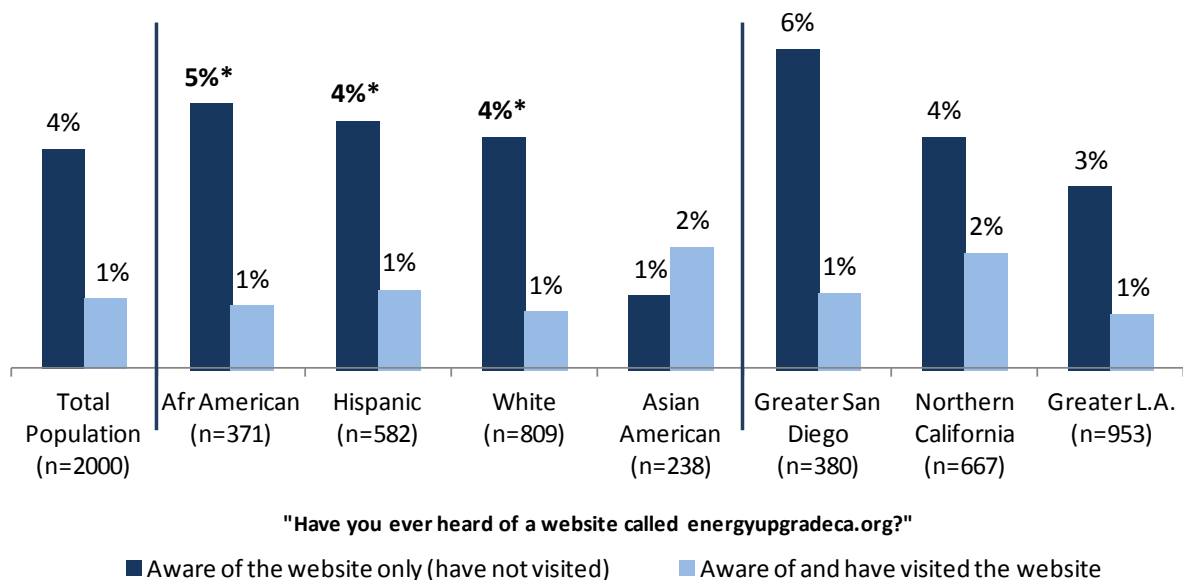
The general population telephone survey also measured residents’ awareness of California’s state goals to reduce energy use by 2020. One-third of the total population is aware of these goals, far more than the 17% aware of the Energy Upgrade California brand. Analysis across ethnicities and regions show that white respondents and Northern Californians were among the most aware of the State’s 2020 energy goals.

**Figure 11. Percent Aware of California State Goals by Ethnicity and Region**

\*indicates percentage is significantly higher than the African-American, Asian-American and Hispanic percentages at the 90% confidence interval.

†indicates percentage is significantly higher than the Greater L.A. percentage at the 90% confidence interval.

Regarding the Energy Upgrade California website, we found that few are aware of the website and even fewer have visited it (4% and 1%, respectively). We anticipate that awareness of an Energy Upgrade California website will grow if it is promoted through a broader Energy Upgrade California awareness campaign.

**Figure 12. Percent Aware of the Energy Upgrade California Website (by Ethnicity and Region)**

\*indicates percentage is significantly higher than the Asian-American percentage at the 90% confidence interval.

## Brand Associations

Our research also explored brand associations among those who said they were aware of Energy Upgrade California with those who were not. While those who are not aware are “uninformed,” their responses about associations with the brand are still informative for the campaign implementers, as it provides insights on the types of concepts that are associated with the name prior to the launch of the effort.

Responses to the open-ended question about associations with the Energy Upgrade California name varied widely, making it difficult to find themes. Overall, however, brand associations are generally weak, (that is, not associated with any specific area) and consistent between aware and unaware populations. The top associations with the brand were to save energy and money generally, as well as to specifically upgrade to energy efficient appliances or make home improvements to save energy. Many people were coded in the “other” category given that responses varied widely; some examples of responses in the “other” category include “balancing my check-book” or “saving the environment.”<sup>15</sup>

<sup>15</sup> The research team analyzed the open-ended responses and coded the ones which appeared to have the largest consensus. This coding approach still left a large “other” category given the wide variance in responses. Further investigation into these open-ends may be useful to the CCSE and the IOUs. An excel file including all of the open-ended responses and how they were coded was provided to the CCSE.

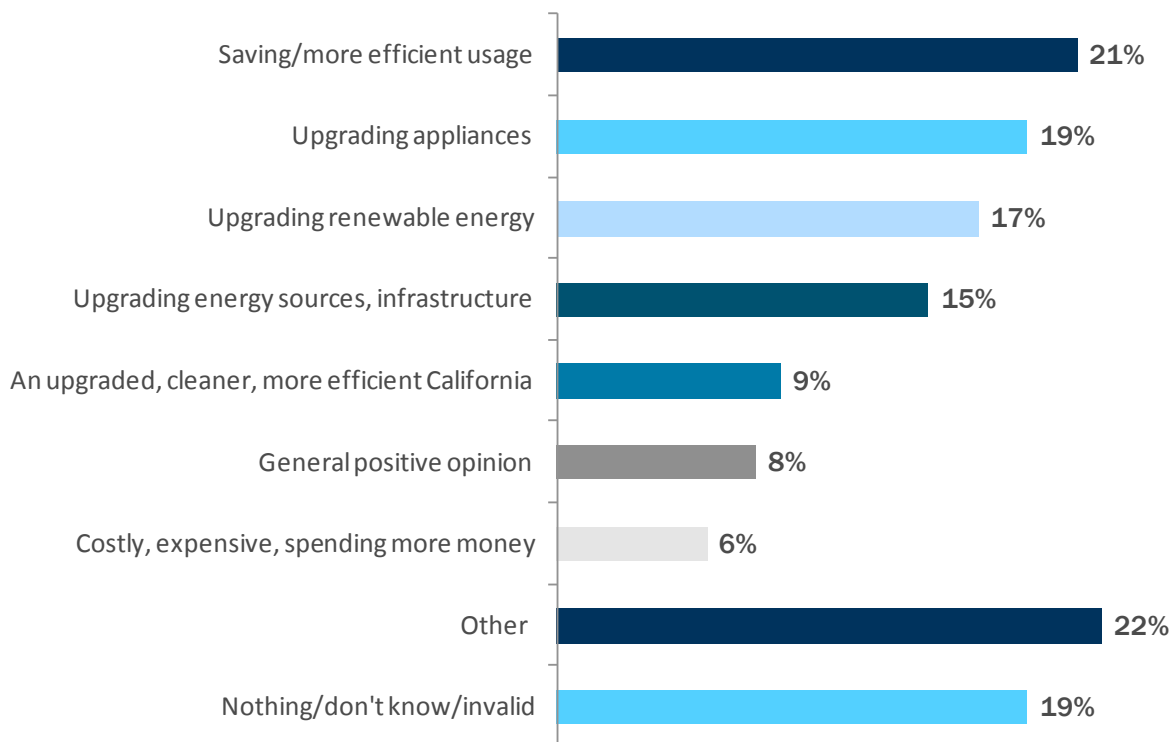
**Table 12. Open-ended Energy Upgrade California Brand Associations (Multiple Response)**

Coded Category	Energy Upgrade California Aware (n=346)	Energy Upgrade California Unaware (n=1,654)
Save energy/money	25%*	17%
Upgrade to EE appliances/EE home improvement	10%	15%*
Negative association (General)	7%	5%
Renewables (solar, wind, etc.)	6%	9%*
Improve energy sources (General)	5%	3%
Positive association (General)	4%	7%*
Campaign/Program to save energy (Positive)	3%	1%
Rebates/Tax credits	1%	1%
Infrastructure/Grid upgrades	1%	2%
Campaign/Program to save energy (Neutral)	1%	2%
Other	19%*	13%
Nothing/Don't Know/Refused	20%	25%*

\*indicates percentage is significantly higher at the 90% confidence interval.

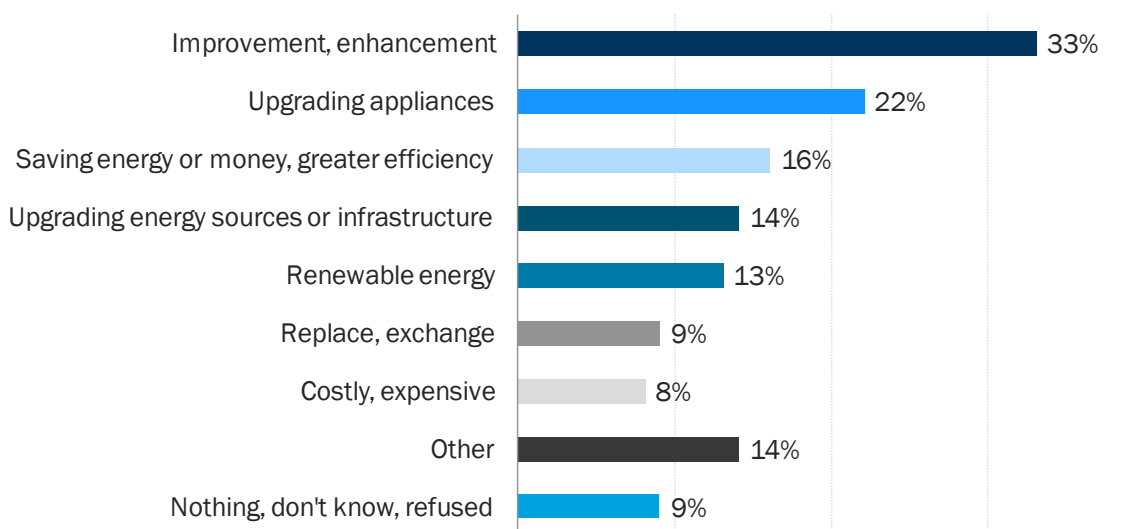
As shown in Figure 13 below, the internet panel respondents had very similar associations to the phone survey population. The strongest association was between saving or more efficient energy usage (21%) followed by upgrading appliances (19%).

**Figure 13. Open-ended Energy Upgrade California Brand Associations – Internet Panel (Multiple Response)**



**What do you think of when you hear the phrase 'Energy Upgrade California'? (n=518)**

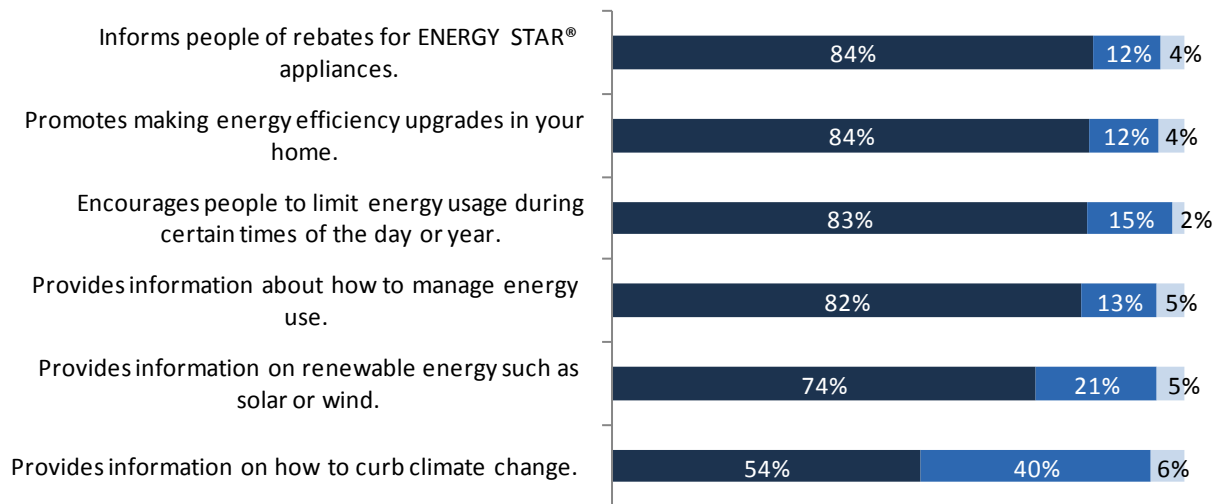
The Internet panel also provided an opportunity to delve deeper into what respondents associate specifically with the word “upgrade” in the phrase “Energy Upgrade California.” Most respondents think that the word “upgrade” refers to improvement in general or upgrading appliances.

**Figure 14. Internet Panel: Associations with “Upgrade”**

**When you hear the phrase “Energy Upgrade California”, what do you think is meant by the word “Upgrade”? (Multiple Response)**  
**(n=518)**

After asking for a list of brand associations, the general population telephone survey probed for specific associations among those who said they were aware of the Energy Upgrade California brand. Given that the brand was used to promote the Whole House program prior to this study, we would expect that if people were truly aware of the brand that they would strongly associate it with making energy efficiency upgrades in the home and providing information on how to manage energy use. As shown in the figure below, this is true, but respondents also associated the brand with other energy concepts that were not necessarily directly tied to the Whole House program and messaging. Therefore, these data indicate, again, that even though people may have said they were aware of the Energy Upgrade California brand, they were not necessarily very knowledgeable of what it was promoting. These data also indicate that the brand is able to expand beyond the Whole House program, and even beyond energy efficiency into solar, climate change, and other related topics. In fact, for many (given that their level of knowledge is limited) the name already covers many of the messages that the Energy Upgrade California wants to promote in the future.

**Figure 15. Energy Upgrade California Brand Knowledge Among the Energy Upgrade California Aware (n=382)**

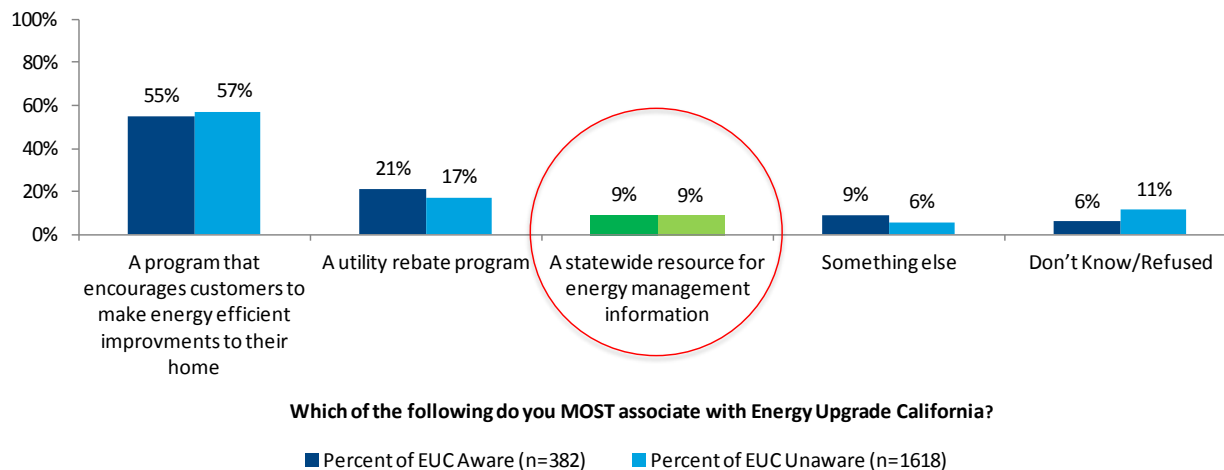


**"Based on what you may have seen or heard about Energy Upgrade California, please tell me if the following describes what you know about it."**

■ Yes ■ No ■ Don't Know

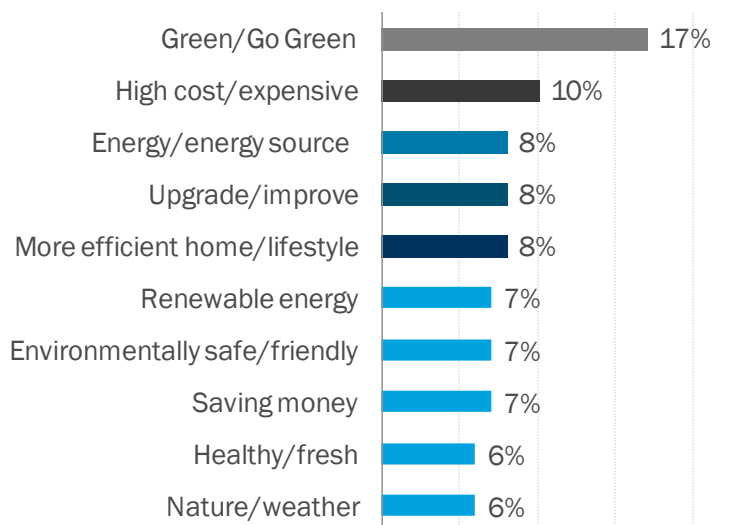
In designing the research, CCSE expressed that one of their possible objectives is to have Energy Upgrade California be thought of as a "Statewide resource for energy management information." As such, we also asked respondents (aware and unaware of Energy Upgrade California) for their top association with the brand from a list of several options that included the option of "a statewide resource for energy management information." As expected, most respondents associate the brand with a program that encouraged customers to make energy efficient improvements to their home or a utility rebate program. Few people currently associate Energy Upgrade California with where the brand intends to position itself in the future. If CCSE promotes Energy Upgrade California as a statewide resource for energy management information, we would anticipate that this would grow.

**Figure 16. Aided Energy Upgrade California Brand Associations within the Population (by Energy Upgrade California Awareness)**



The Internet panel provided an opportunity to visually show residents the Energy Upgrade California logo and ask them for what comes to mind. As shown in the figure below, a wide range of words come to mind when people see the logo and most of them are consistent with the concepts that Energy Upgrade California wants to promote. However, we note that 10% of respondents associate the logo with high cost or something expensive, which may be a barrier that the campaign will need to mitigate moving forward.<sup>16</sup>

<sup>16</sup> It should also be noted that the Internet panel, while weighted to represent the full population as best as possible, does have a bias in that these respondents all self-selected to participate in an Internet panel that paid them for their participation. Overall, this population was less aware of Energy Upgrade California than the telephone survey population.

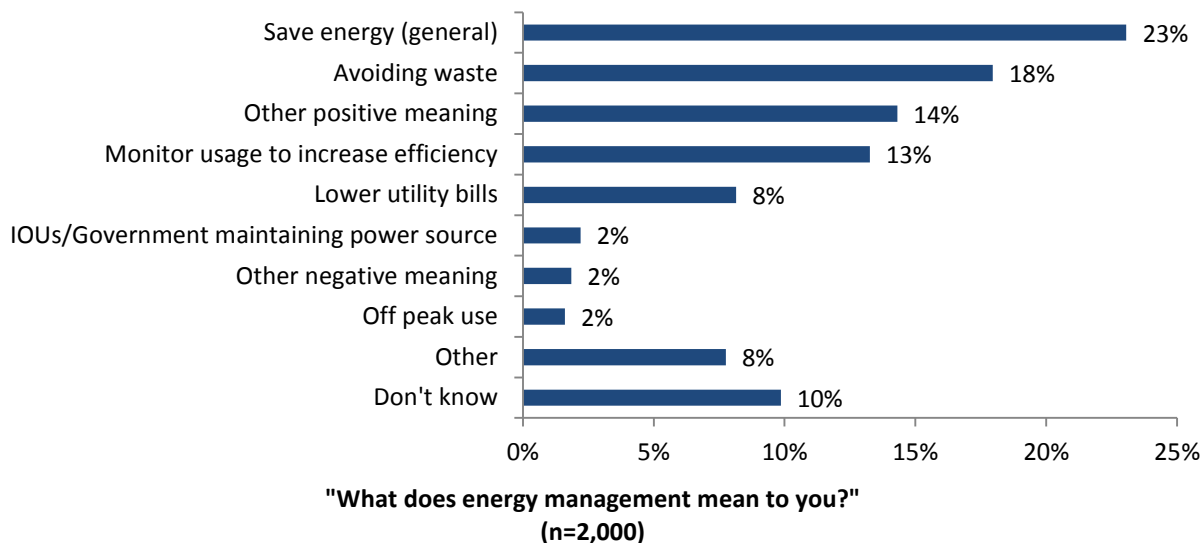
**Figure 17. Internet Panel: Logo Associations**

**Ignoring what you may already know about Energy Upgrade California, please provide three words or phrases that come to mind when you look at the Energy Upgrade California logo. (Multiple response)**  
**(n=518)**

## Energy Management Knowledge

CCSE is also considering promoting “energy management” in households and businesses. Energy management is not a common phrase or term, and thus our research also explored associations with the phrase “energy management” as well as energy management knowledge. We began by asking respondents what the term “energy management” means to them. Most people defined energy management in general terms such as “it means finding ways to save energy.” Many people also defined it as taking steps to conserve energy such as “shutting off lights” (we labeled this as “avoiding waste” in the categories below). Further, many people said something generally positive about the term such as “it’s good or it’s important.” If the future Energy Upgrade California campaign educates the market on the many ways by which residents can manage energy, we expect that the definition will be more specific over time and more closely tied to future messaging used in Energy Upgrade California educational efforts.



**Figure 18. Energy Management Definition (Unaided, Multiple Response)**

The survey measured awareness and knowledge of different energy management opportunities. The survey covered six main opportunities that were described in colloquial terms. Concepts and the descriptions used in the survey are listed below:

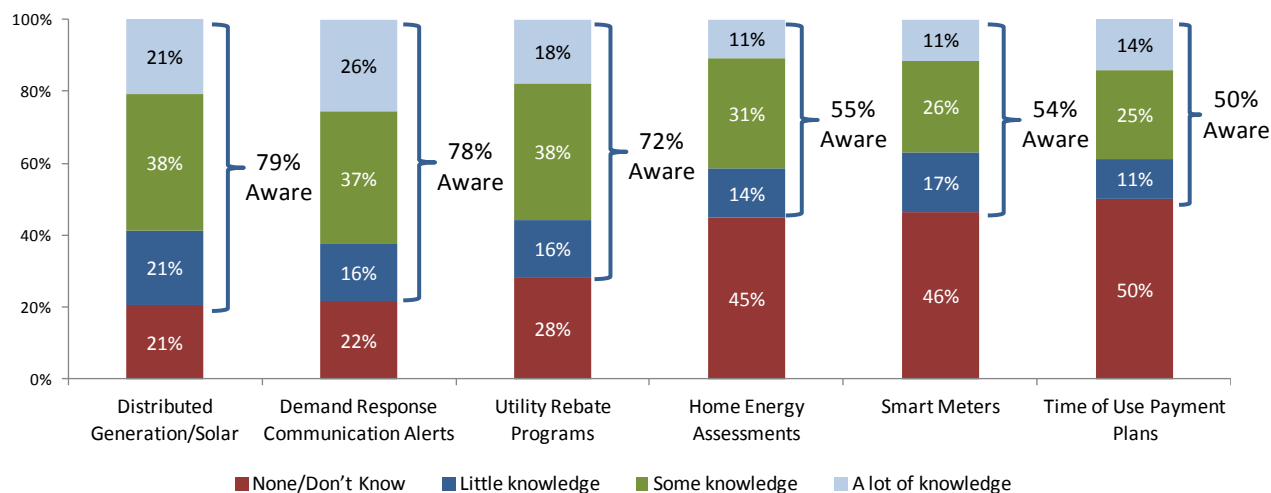
- Time of use rates: Utility payment plans that allow you to pay a lower rate for electricity during early morning and evening hours, and a higher rate during the day
- Demand response communication alerts: Communication alerts that ask you to reduce electricity use at critical times like on the hottest summer afternoon
- Smart meters: New meters that allow you to view your home's daily energy use information<sup>17</sup>
- Utility rebate programs: Rebates offered through your utility for energy-related home improvements
- Distributed generation: The opportunity to use alternative energy such as solar panels on your roof
- Home energy assessments: Online or in-home energy assessments, that give recommendations on ways to decrease your energy use

As shown in the figure below, people are aware of energy management opportunities but knowledge is more limited. Respondents are most knowledgeable about solar and demand response concepts;

<sup>17</sup> The research team and CCSE discussed the terminology that would best suit the respondents' knowledge in terms of "smart meters". It was collectively decided to not use the term "smart meters" and instead refer to them as "new meters" and describe their capabilities to respondents as this was likely the terminology that most respondents would understand.

and least knowledgeable about home energy assessments, smart meters, and time of use payment options. One objective under consideration is using the brand to raise knowledge levels of these concepts.

**Figure 19. Awareness of Energy Management Opportunities**

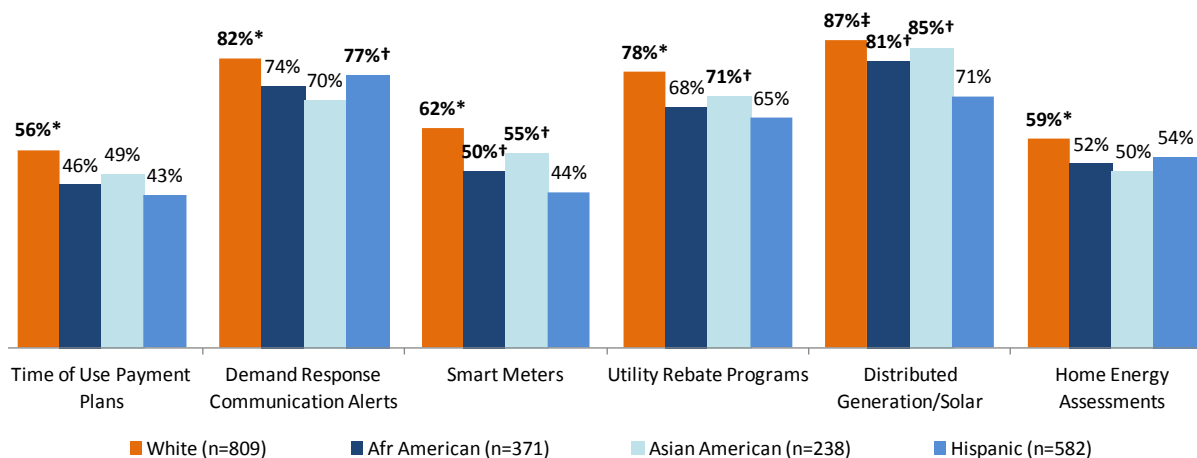


**Would you say that you have - little knowledge, some knowledge, or a lot of knowledge about this?**  
(n=2000)

Note: Aware & knowledge percentages may not add due to rounding.

We found significant differences among ethnic groups in terms of awareness of these energy management opportunities. Notably, the white population tends to be more aware of opportunities than other ethnic groups, in most cases.

**Figure 20. Percent Aware of Energy Management Opportunities (by Ethnicity)**



**Are you aware of...?**

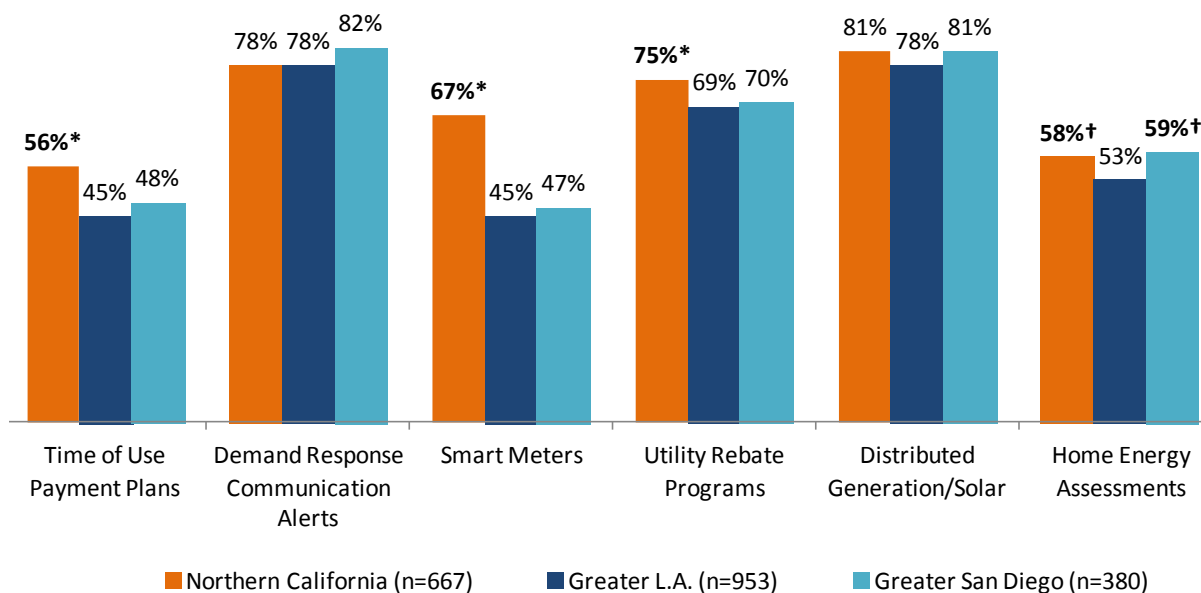
\*indicates percentage is significantly higher than the African American, Asian American and Hispanic percentage at the 90% confidence interval.

†indicates percentage is significantly higher than the Hispanic percentage at the 90% confidence interval.

‡indicates percentage is significantly higher than the African American and Hispanic percentage at the 90% confidence interval.

We also found significant differences by region. The Northern California region tends to be more aware of some energy management opportunities than other regions.

**Figure 21. Percent Aware of Energy Management Opportunities (by Region)**

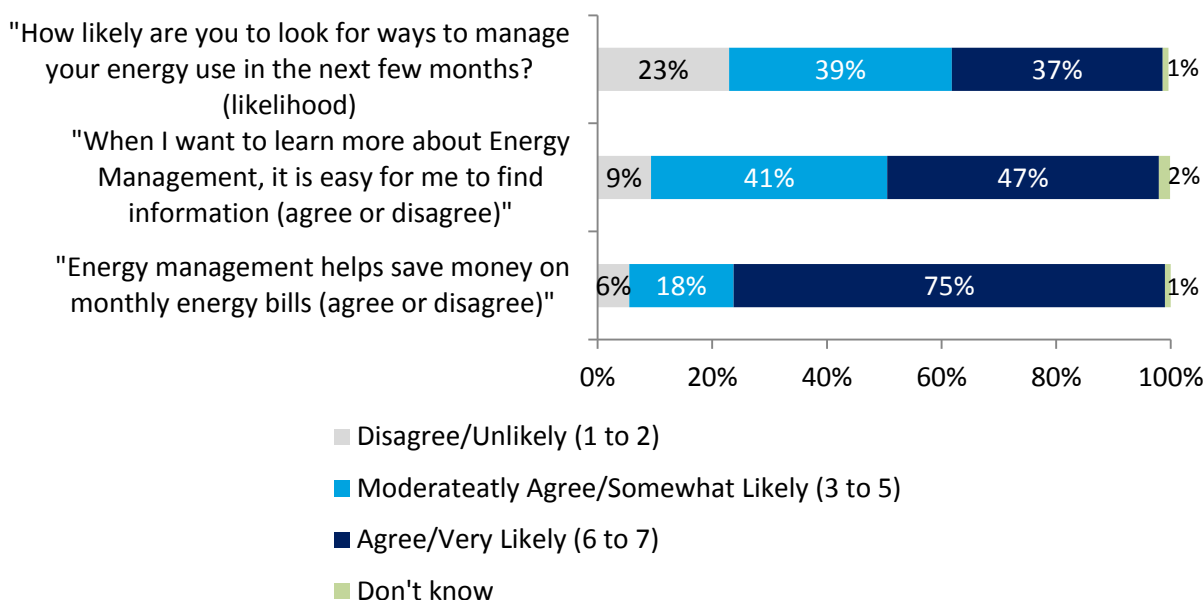


**Are you aware of...?**

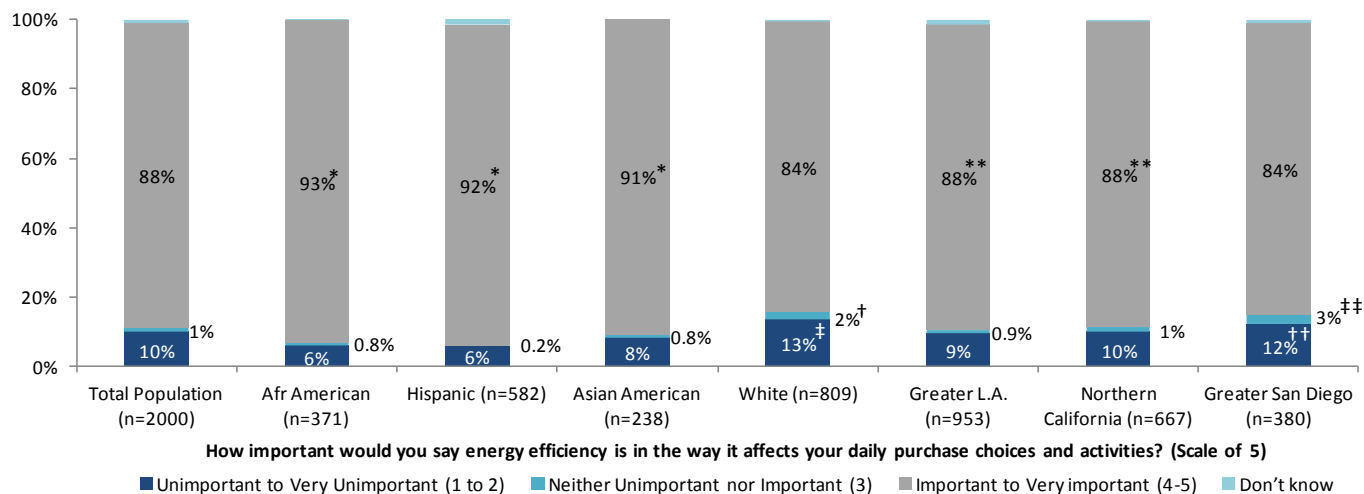
\*indicates percentage is significantly higher than the Greater L.A. and Greater San Diego percentage at the 90% confidence interval.

†indicates percentage is significantly higher than the Greater L.A. percentage at the 90% confidence interval.

For the purpose of this survey, we defined the term energy management as the ways that people can monitor and control energy use. This can include using energy when it is less expensive, investing in energy efficient home improvements, turning off lights when not needed, and using alternative energy such as solar. Given this definition of energy management, we asked respondents several questions to gauge their attitudes toward the concept. Most people think that energy management helps them save energy and money, however few are likely to look for information within the next 6 months or think it is easy to find information for energy management.

**Figure 22. Energy Management Attitudes within the Total Population (n=2,000)**

Further, most people in CA, regardless of region or ethnicity, say that energy efficiency is either important or very important in the way it affects their daily purchase choices and activities. California residents think energy efficiency is more important compared to the rest of the nation. For eight years, The Shelton Group's National Energy Pulse study has trended the importance of energy conservation in terms of its impact on daily purchase choices and activities. In 2012, 64% of respondents nationally claimed that energy conservation was important or very important.

**Figure 23. Importance of Energy Efficiency (by Ethnicity and Region)**

Note: DK of 2% or less not shown

\*indicates percentage is significantly higher than White at the 90% confidence level

† indicates percentage is significantly higher than Hispanics at the 90% confidence level

indicates percentage is significantly higher than African American, Hispanic, and Asian American at the 90% confidence level

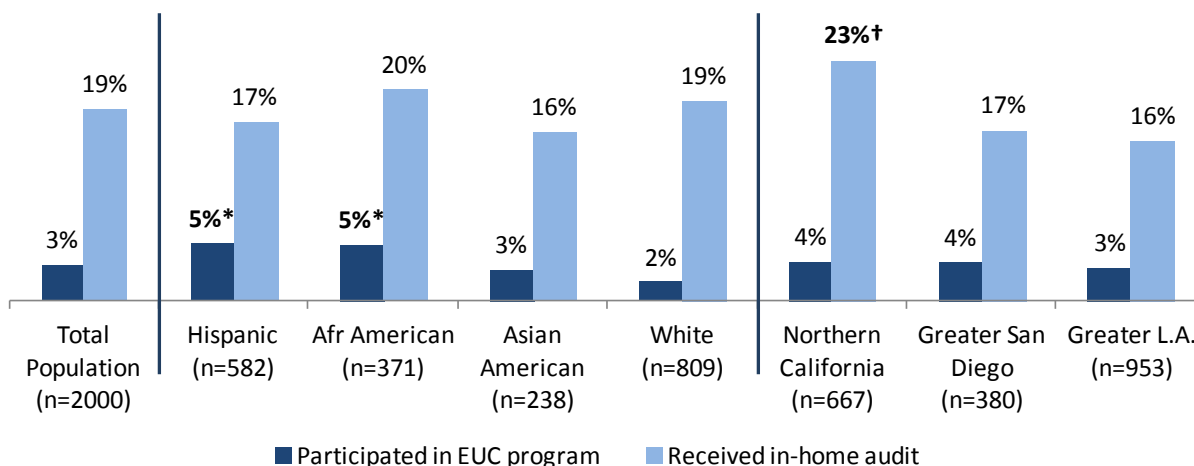
\*\*indicates percentage is significantly higher than Greater San Diego at the 90% confidence level

††indicates percentage is significantly higher than Greater L.A. at the 90% confidence level

‡‡ indicates percentage is significantly higher than Greater L.A. and Northern California at the 90% confidence level

The Energy Upgrade California initiative is ultimately looking to increase the number of people taking action to manage their energy use. This survey measured two key energy management actions as a baseline measure. As shown in the figure below, 3% of respondents said they participated in the Energy Upgrade California Whole House program. This is likely higher than the actual proportion of households that participated in this program given that only 6,600 total Whole House jobs came through the program between 2010 and 2012 statewide<sup>18</sup>, which equates to 0.055% of households (assuming 12 million households in California). It is possible that respondents were confused by the question wording and could not recall exactly what energy program they participated in, especially given that some low-income weatherization program efforts were marketed under the Energy Upgrade California brand. Results are also interesting for the proportion of households that received an in-person audit where someone assesses energy use in the home. According to the California IOUs, this proportion seemed artificially high compared to their program numbers; however, it is possible that residents had in-home audits without assistance from an IOU program.

**Figure 24. Energy Management Actions Taken (by Ethnicity and Region)**



**Has your household ever received an in-person audit where someone assesses energy use in your home?**

**Has your household ever participated in the Energy Upgrade California whole house retrofit program?**

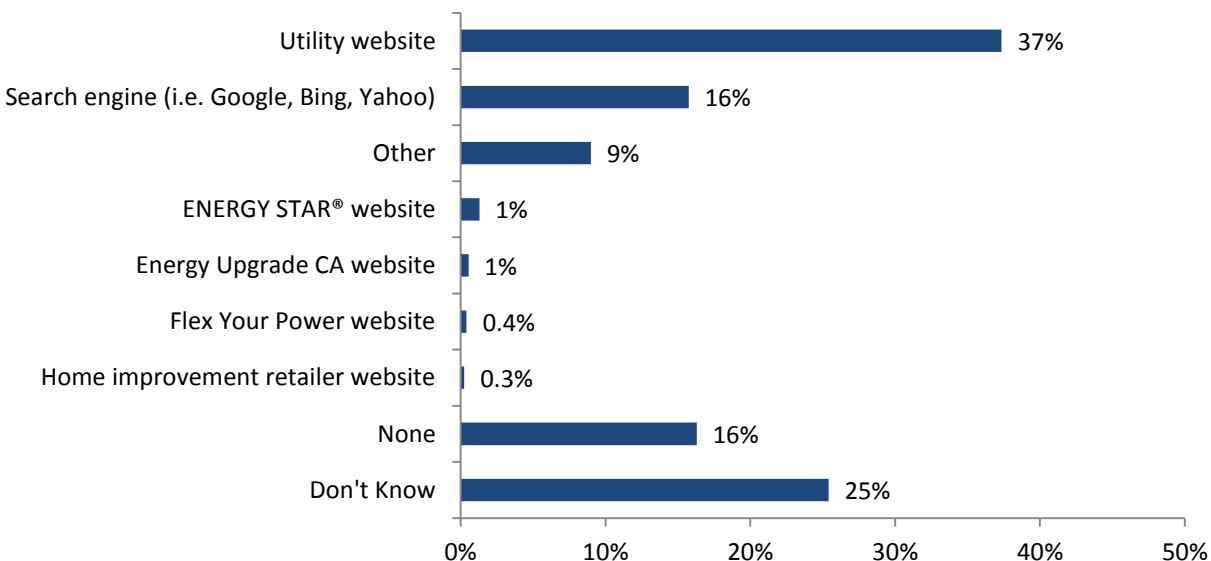
\*indicates percentage is significantly higher than the White percentage at the 90% confidence interval.

†indicates percentage is significantly higher than the Greater San Diego and Greater L.A. percentage at the 90% confidence interval.

<sup>18</sup> Energy Upgrade California Stakeholder Workshop, January 25, 2013

When asked what websites residents would visit for information on energy management, most people would visit a utility website or said they do not know where to go. Ultimately, if the Energy Upgrade California website is promoted, we would expect more individuals to mention this website in the future.

**Figure 25. Websites Residents Would Visit for Energy Management**

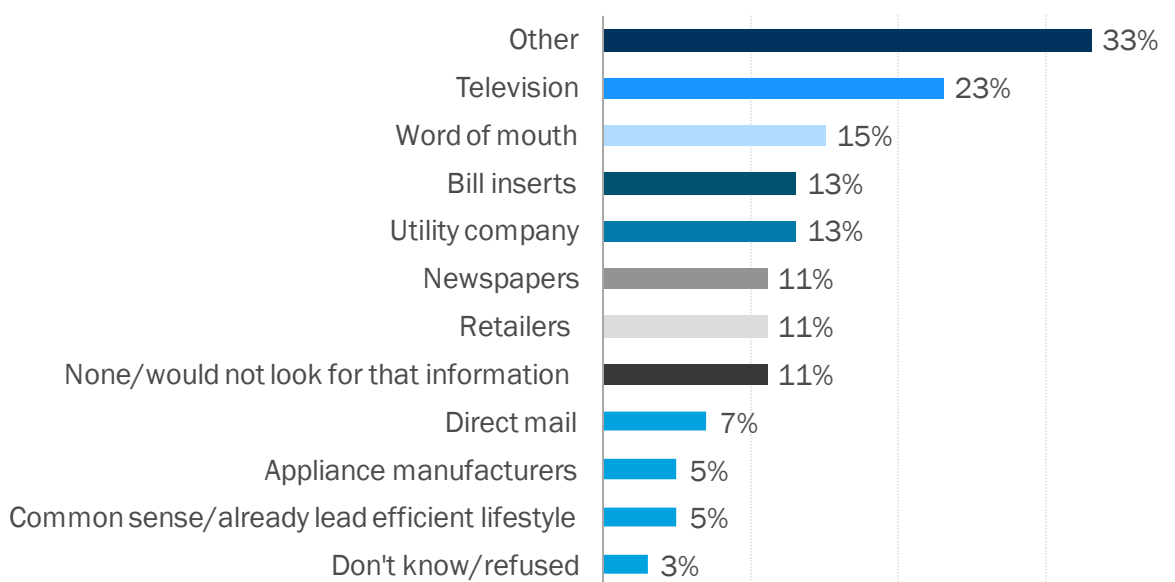


**What websites, if any, would you visit to find information on how you can better manage your energy use?**  
(n=2000)

The Internet panel provided an opportunity to ask residents for where they might learn about energy management besides looking on websites. Most respondents learn about information on energy management on television or through word of mouth. Examples of responses that fall under the “other” category include: Radio (4%), Flyers, brochures (4%), Government affiliated site or source (3%), Unspecified ads (3%), Magazines/periodicals (3%), The media/news (2%), Community events (2%), Industry professional (2%), Email (2%), Books/Library (2%), Billboards (2%), Solicitations (1%), and Phonebook (1%).<sup>19</sup>

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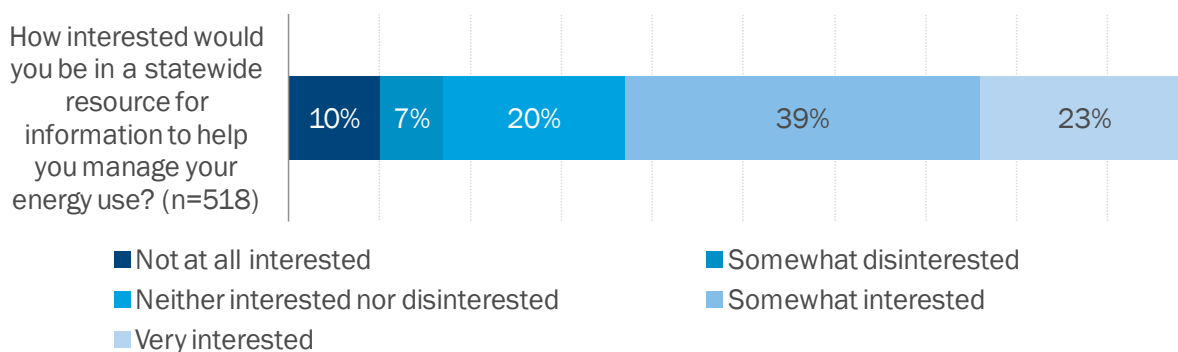
<sup>19</sup> The research team analyzed the open-ended responses and coded the ones which appeared to have the largest consensus. This coding approach still left a large “other” category given the wide variance in responses. Further investigation into these open-ends may be useful to the CCSE and the IOUs. An excel file including all of the open-ended responses and how they were coded was provided to the CCSE.

**Figure 26. Internet Panel: Current Preferred Sources of Energy Management Information**

Besides looking for information on websites, what are other ways that you learn about opportunities or products that help you manage your energy use? (Multiple response)

(n=518)

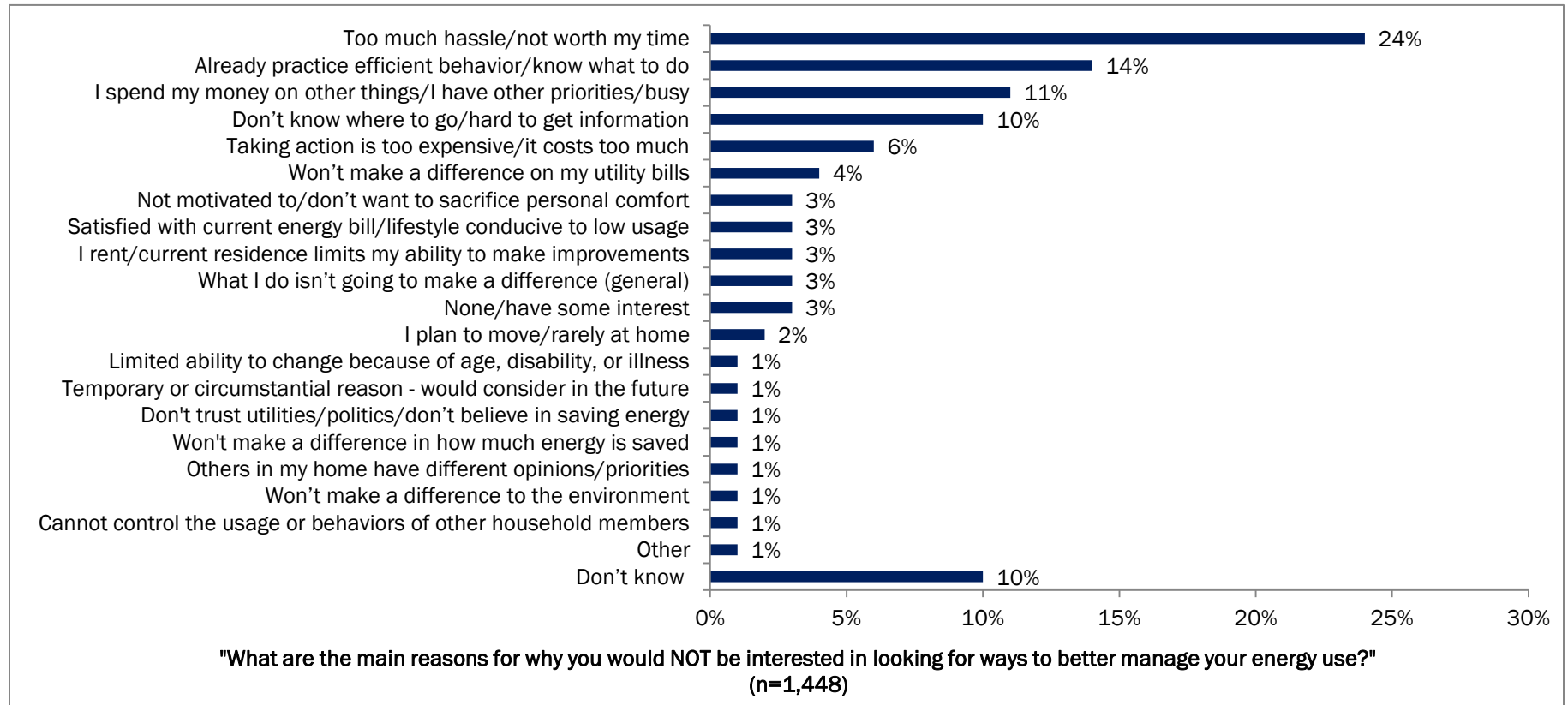
The Internet panel also provided an opportunity to measure interest in a statewide resource for information related to energy management. As shown below, there is interest in this resource among individuals who are online.

**Figure 27. (Internet Panel) Interest in statewide resource for energy management information**

## Energy Saving Barriers

To help CCSE understand barriers faced by residential households, we also asked respondents who said they were not very likely (ratings 6 or less on a 7-point likelihood scale) to look for ways to better manage their use in the next year for why they would not be interested. Top barriers to looking for ways to manage energy use include thinking it is too time-consuming, already practicing efficient behavior, and being too busy or spending money on other priorities.

**Figure 28. Key Barriers to Looking for Ways to Better Manage Energy Use**



Note: This question was only asked of those respondents who did not indicate they were highly likely to look for ways to better manage their energy use.



## 4.1.2 CA SEGMENTATION DIFFERENCES

### Knowledge from the 2009 CA Segmentation Study

The general population residential telephone survey included nine questions that are used to create California segments. These questions and segments were created in the 2009 CA Statewide Segmentation Study developed to inform the 2010-2011 Statewide Marketing and Outreach Program's (SWM&O) efforts for the state's investor owned utilities' (IOUs) future program development, marketing and outreach efforts. In 2009, the Opinion Dynamics team identified five unique segments for the CPUC and IOU outreach efforts. These segments were developed to allow for strategic and tailored branding and marketing. Figure 29 provides a snapshot summary of each segment's level of energy efficiency importance (as a factor of personal relevance and awareness), their primary non-monetary motivations, and their potential behavioral movement (indicated by the direction of the arrows in the "behavioral movement potential" column). Note that this information is as presented in the 2009 study.

Figure 29. 2009 Final Five Statewide Segments

SEGMENT	E.E. IMPORTANCE	MOTIVATION RANK	BEHAVIORAL MOVEMENT POTENTIAL	OUTREACH RECOMMENDATIONS
<b>LEADING ACHIEVERS</b>		1 Money 2 Environment 3 Foreign oil 4 Future gen. 5 Health → 1 Climate chg. 2 Healthy env. 3 Future gen.		<b>APPEAL</b> ➤ Engage as peers and leaders in movement <b>OUTREACH APPROACH</b> ➤ Sophisticated, info-driven, available online
<b>PRACTICAL SPENDERS</b>		1 Money 2 Foreign oil 3 Future gen. 4 Health 5 Environment → 1 Energy independence 2 Nat'l security 3 Help economy		<b>APPEAL</b> ➤ Straightforward, no-nonsense messaging <b>OUTREACH APPROACH</b> ➤ IOU programs, traditional media
<b>STRIVING BELIEVERS</b>		1 Money 2 Environment 3 Future gen. 4 Foreign oil 5 Health → 1 Climate chg. 2 Resources 3 Animal and plant life		<b>APPEAL</b> ➤ Social capital-driven media with "us" appeal <b>OUTREACH APPROACH</b> ➤ Web-based formats with clear information
<b>THRIFTY CONSERVERS</b>		1 Money 2 Environment 3 Foreign oil 4 Health 5 Future gen. → 1 Climate chg 2 Healthy env. 3 Resources		<b>APPEAL</b> ➤ Efficiency barrier-reduction messaging <b>OUTREACH APPROACH</b> ➤ IOU programs, point-of-purchase messaging
<b>DISCONNECT-ED</b>		1 Money 2 Environment 3 Help state lead 4 Health 5 Foreign oil → 1 Animal and plant life 2 Healthy env. 3 Climate chg.		<b>APPEAL</b> ➤ Community health and well-being messaging <b>OUTREACH APPROACH</b> ➤ Community or faith-based local outreach

## Key Findings by Sector

\* The circles in these diagrams indicate where each segment is now. Arrows show the direction for movement. Disconnected has low adoption overall, and needs to be moved in both directions.

In the 2009 study, in order to develop clear descriptions of each segment, we “profiled” segments by other variables in the survey (cross-tabs) including demographics and others. The segments were compared to all remaining segments combined and the following segmentation descriptions were developed drawing only on those differences that are statistically significant with 95% confidence. Using these profiles, we developed marketing and outreach recommendations for our five segments: Leading Achievers, Practical Spenders, Striving Believers, Thrifty Conservers, and the Disconnected.

The table below provides a snapshot summary of these final five segments from the 2009 study to give context to findings regarding awareness of Energy Upgrade California, the State’s goals, and knowledge of energy management.

**Table 13. 2009 Segmentation Snapshot<sup>20</sup>**

	Leading Achievers	Practical Spenders	Striving Believers	Thrifty Conservers	Disconnected
% of Sample	22%	18%	25%	21%	15%
Own/Rent	Mostly owners	Mostly owners			Mostly renters
Urban/Rural		More rural	More urban		
Income	Higher Income			Lower income	Lowest Income
Ethnicity	Mostly white				AA and Hispanic
Age	Older	Older			Younger
Education	More educated	Less educated	More educated	Less educated	Less educated
Political Affiliation	Liberal	Conservative	Liberal	Conservative	
Practices		↓	↑	↑	↓
Low cost EE	↑	↑	↓	↓	↓
Low cost with Install	↑	↑	↓	↓	↓
High Cost EE	↑	↑	↓	↓	↓
IOU Participation	↑	↑	↓	↓	↓
Willingness to Reduce Energy Use	↑		↑	↓	

<sup>20</sup> Arrows indicate statistical significance at 95% confidence compared to all remaining segments.

## **2012 Brand Assessment Study Findings by Segment**

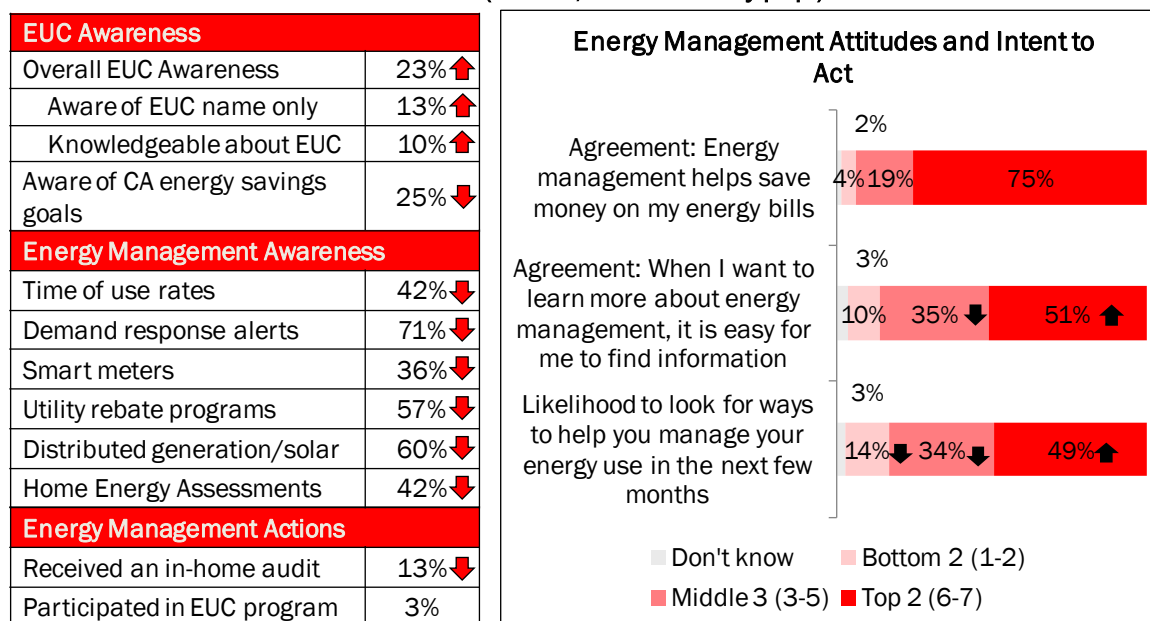
In this brand assessment study, we included the nine key questions from the 2009 that produced the five key segments and ran statistical comparisons between the segments. As expected, we found some significant differences by segment in terms of Energy Upgrade California brand awareness, energy management awareness, knowledge, action, and attitudes. The figures below show the results of key questions where we found significant differences between the segments.

Each figure shows an up or down arrow, indicating that the segment was significantly different when compared to all other segments combined.

From the 2009 study, we know that the Disconnected segment tends to take little to no energy saving actions (including energy efficiency and conservation) relative to the other segments. This is consistent with the findings summarized below. Interestingly, however, the Disconnected segment is more aware and knowledgeable of the Energy Upgrade California brand than the other four segments. This is likely because the Disconnected segment tends to have a lower-income level and may have associated the brand with the low-income weatherization program or other energy saving targeted efforts to lower-income households.

**Figure 30. Disconnected Segment Findings**

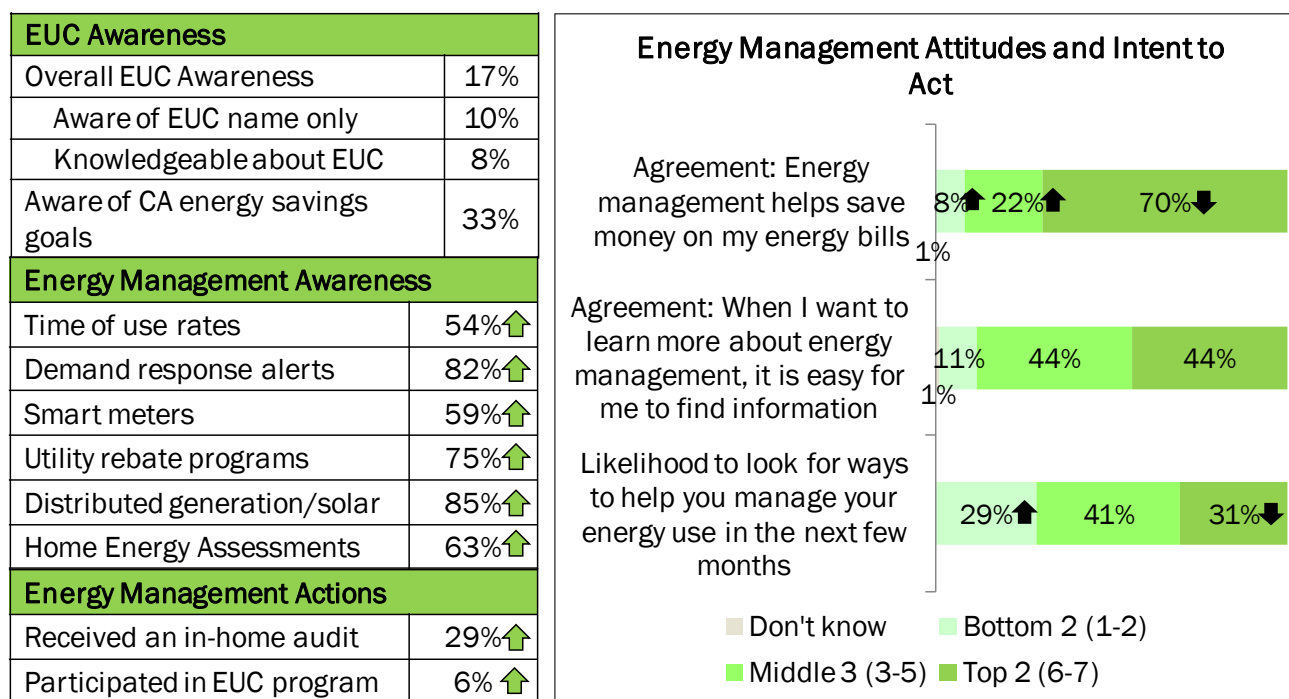
Disconnected (n=556, 28% of survey pop.)



From the 2009 study, we know that the Practical Spenders have high levels of energy efficiency adoption but lower personal concern for saving energy and conservation as an issue. From this study, we also see that Practical Spenders are more aware of energy management opportunities and more likely to take actions to reduce energy use such as in-home audits and participating in the Whole House program. Interestingly, this segment is less likely to think that energy management saves them money on energy bills and are less likely to look for ways to save energy.

**Figure 31. Practical Spender Segment Findings**

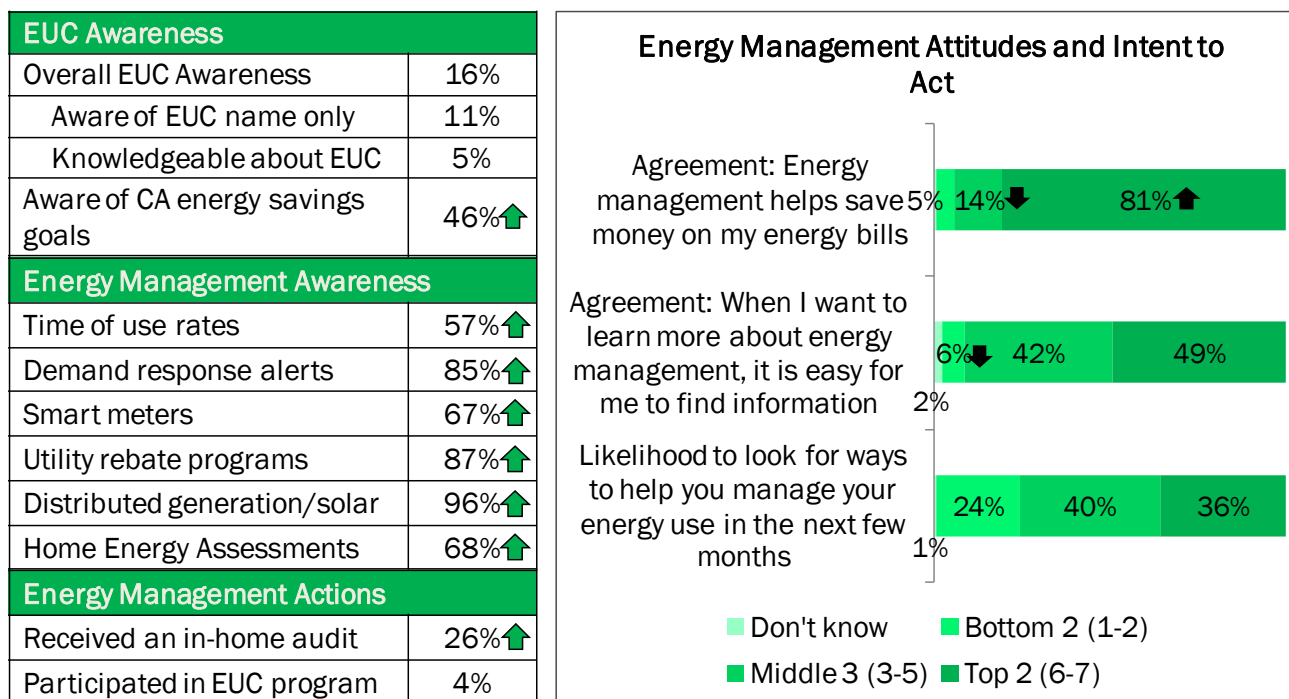
**Practical Spenders (n=400, 20% of survey pop.)**



From the 2009 study, we know that the Leading Achievers have both a high level of energy efficiency adoption and high levels of personal concern and interest in saving energy. Results from this brand assessment study show that this segment is more aware of California's state energy goals by 2020, is more aware of energy management opportunities, is more likely to have received an in-home audit and is more likely to think that energy management saves them money on energy bills.

**Figure 32. Leading Achiever Segment Findings**

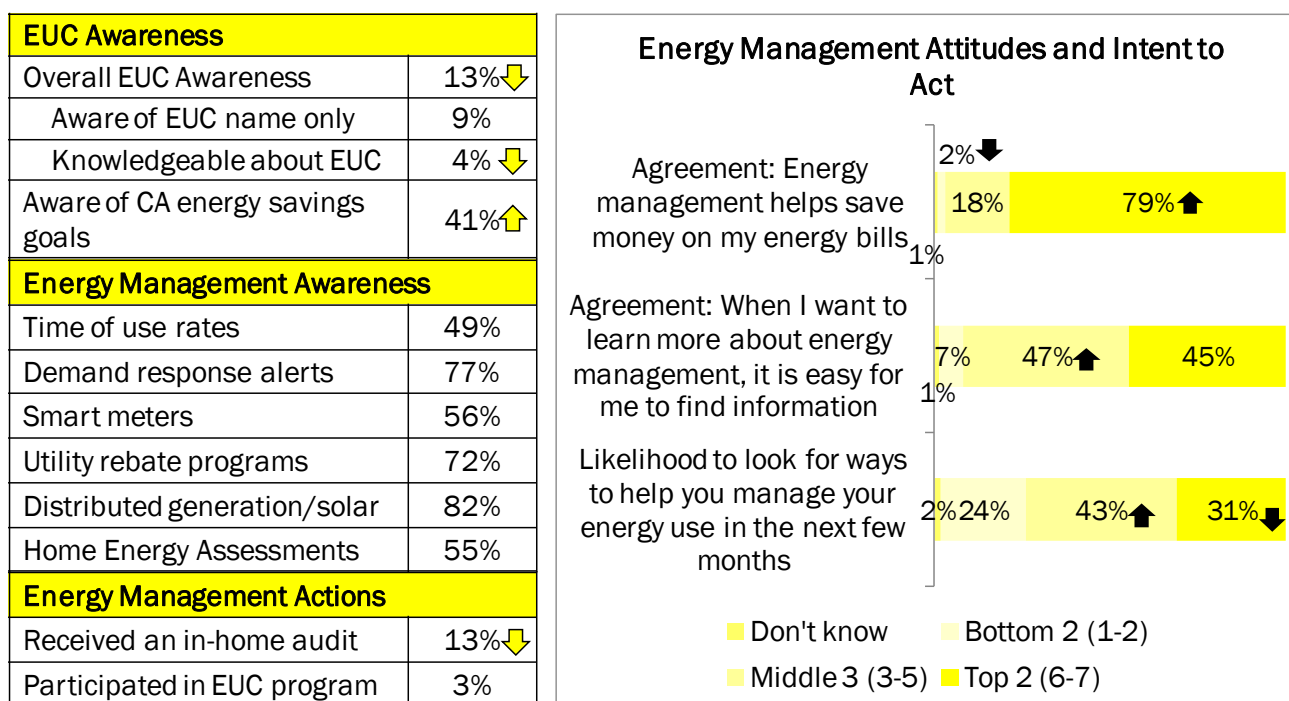
**Leading Achievers (n=475, 24% of survey pop.)**



From the 2009 study, we know that the Striving Believers adopt energy conservation practices, have a high personal concern for saving, but fail to move to the next tier of behavior change (i.e., installing energy efficiency measures). From this brand assessment study, this segment is less likely to be aware and knowledgeable of the Energy Upgrade California brand, less likely to have had an in-home energy audit and less likely to look for ways to manage their energy use. Conversely, this segment is more aware of California's state energy goals by 2020, more likely to think that energy management helps save money.

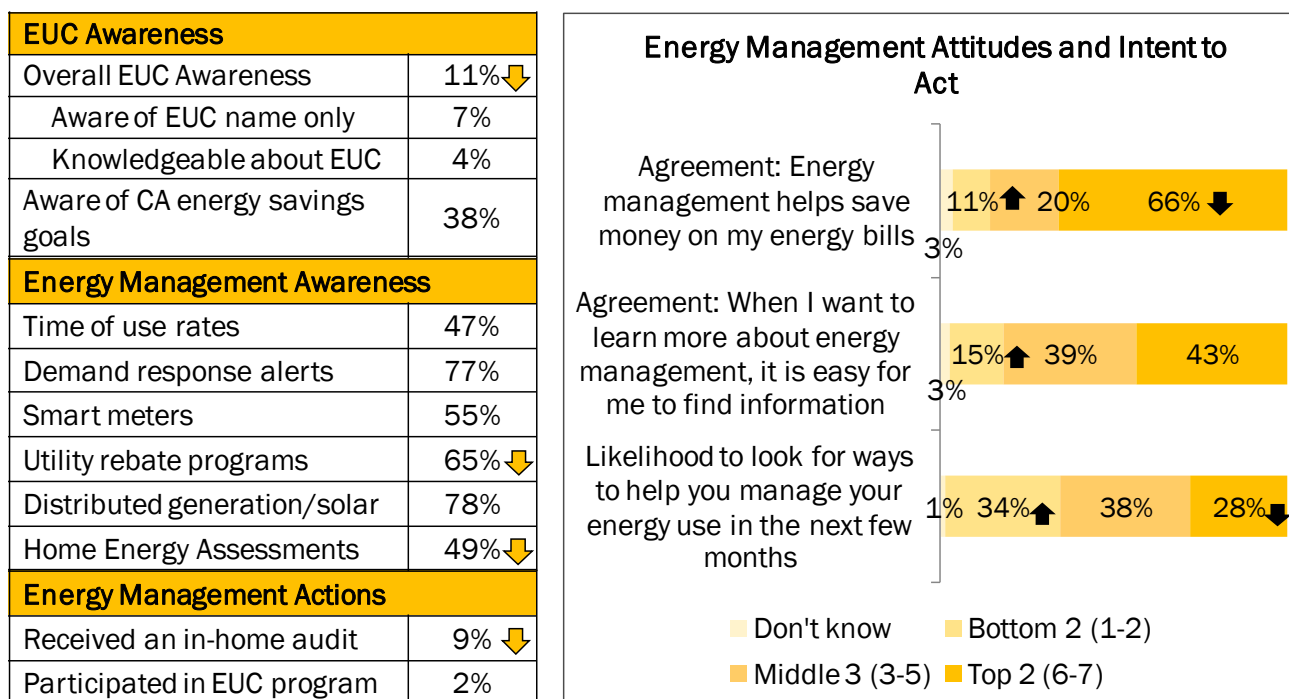
Figure 33. Striving Believer Segment Findings

Striving Believers (n=393, 20% of survey pop.)



From the 2009 study, we know that the Thrifty Conservers, also engage in conservation practices, but have little to no personal interest in saving energy and are less likely to reduce their energy use. Similarly, we found in this study that this segment is less aware of the Energy Upgrade California brand, utility rebate programs and home energy assessments. They are also less likely to have received an in-home audit, less likely to look for ways to manage their energy use and less likely to believe that energy management saves them money.

**Figure 34. Thrifty Conserver Segment Findings**  
**Thrifty Conservers (n=176, 9% of survey pop.)**





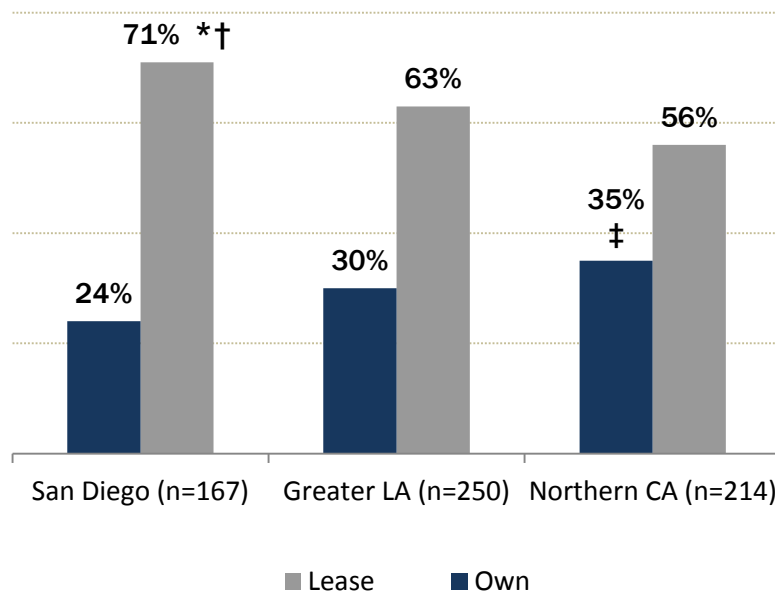
## 4.2 SMALL BUSINESS SECTOR

This section of the report presents findings from our survey of small businesses in California. For the purpose of this study, small business is defined as companies with less than 100 employees and less than \$14 million in annual revenue.<sup>21</sup> Further, while the individuals that we spoke with as part of this survey effort are also members of the general population, they constitute only a portion of that group, and as a result, we expect to see slightly different trends than those from the general population survey effort. At this stage small business awareness of Energy Upgrade California generally reflects trends within the general residential population given that most Energy Upgrade California marketing to date targeted the residential market.

### Small Business Characteristics

The small business survey included a number of questions to gather information on the characteristics of respondents. As expected, the majority of small business respondents lease their facility. In addition, significantly more of the small businesses that we interviewed in San Diego lease their facility than in the Greater Los Angeles or Northern California regions.

Figure 35. Building Ownership by Region



\* Indicates result is significantly different from Greater LA at the 90% level.

† Indicates result is significantly different from Northern CA at the 90% level.

‡ Indicates result is significantly different from San Diego at the 90% level.

Note: Don't know/Refused responses not shown.

<sup>21</sup> Note that these two criteria for small business (100 employees or less, less than \$14 million in annual revenue) are the CPUC's definition of a small business.

Among non-owners, about half (46%) operate their business in a facility that is managed by a property management firm. The majority of non-owners also pay their own electricity bill (61%) with retail (70%) and other (74%) facilities significantly more likely to pay their own bill than offices (35%) and healthcare (53%) facilities. Overall, close to three quarters (73%) of all small businesses pay their electric bill and among all small businesses that use gas, 37% pay their own gas bill.

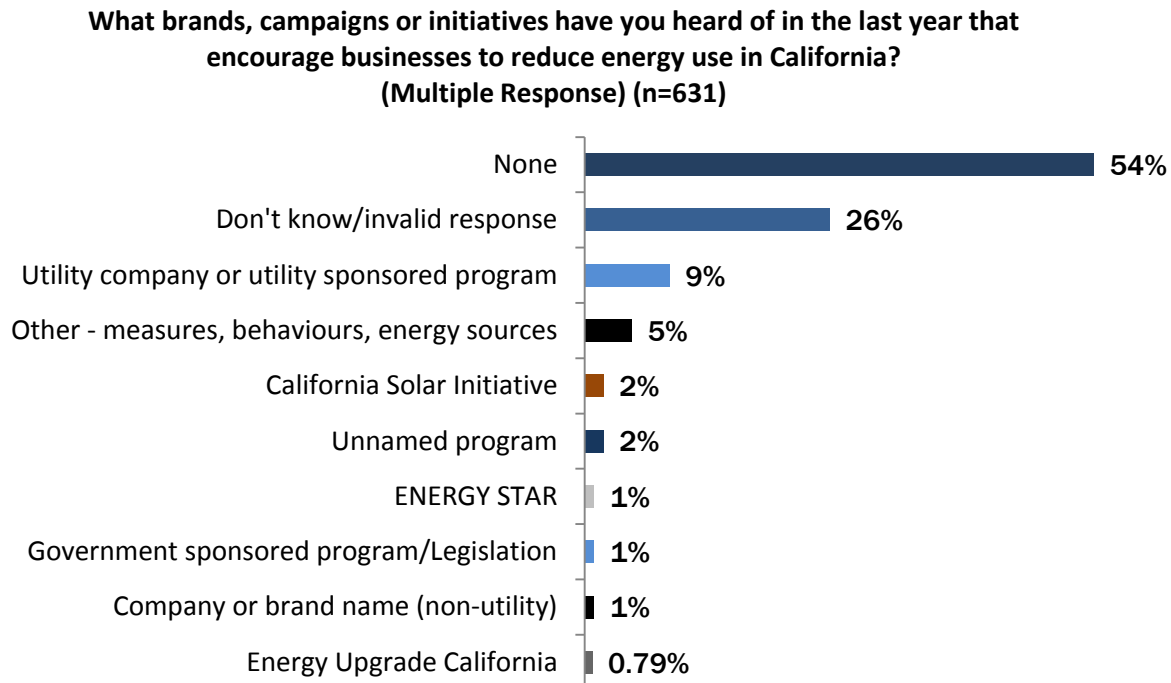
Finally, almost three quarters (73%) of small business respondents have less than 10 employees. Those businesses that lease their facility are significantly more likely to have less than 10 employees (78%) than those businesses that own their facility (65%). In addition, offices are significantly more likely to have less than 10 employees (80%) compared to other facilities (69%). It is important to note that those small businesses with this level of employee resources may make decisions or act in a manner that differs significantly from larger small businesses.

## Unaided Brand Awareness

Unaided awareness of Energy Upgrade California is extremely low among the small business population. As shown in Figure 36, less than one percent of respondents mentioned Energy Upgrade California when asked what brands, campaigns or initiatives they had heard of in the past year that encourage businesses to reduce energy use in California. In comparison, over half of respondents could not name any brand, campaign, or initiative related to saving energy.

As shown in Figure 36, among those who could name a relevant brand, campaign, or initiative, the most common was a utility company or a program sponsored by a utility company (9%). In general, these findings are similar to those among the residential population where unaided awareness was also less than one percent.

Figure 36. Respondent Awareness of Brands, Campaigns, and Initiatives

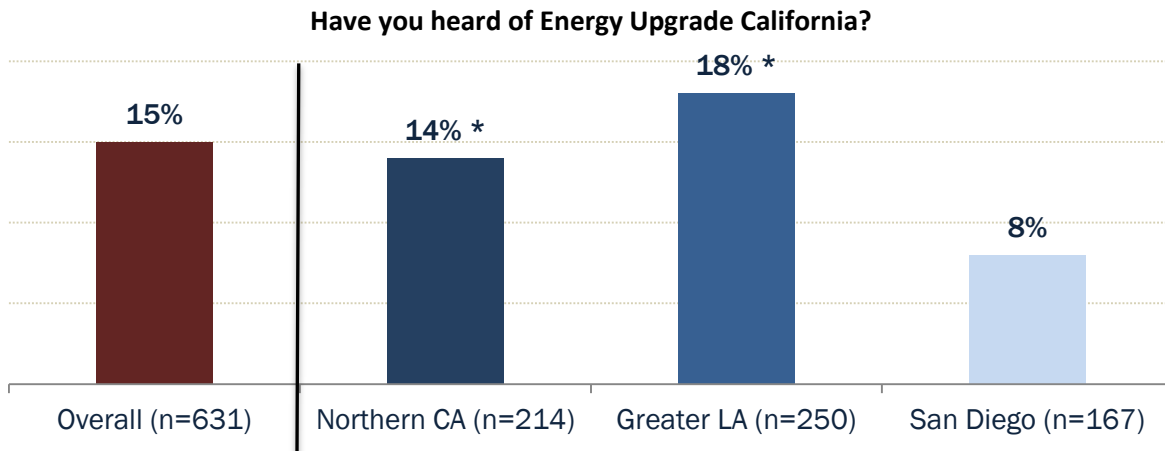


### Aided Brand Awareness (Name Only)

We also asked survey respondents whether they had heard of several campaign names, including a red herring called “Energy Save It”. Among the other items listed were ENERGY STAR and LEED, two actively promoted energy-related brands. Listing a range of campaigns or brands at the same time provides context around Energy Upgrade California awareness by providing a comparison point with awareness of established campaigns.

Based on the telephone survey results, aided awareness of Energy Upgrade California is 15% among small businesses overall. In addition, we also found significant differences in awareness by region. More specifically, small businesses in northern California (15%) and Greater LA (17%) are significantly more likely to be aware of Energy Upgrade California than those located in San Diego (8%). While these results are illustrative, it is important to keep in mind that name only aided awareness is one of many potential metrics. In addition, this question alone does not capture other aspects of Energy Upgrade California awareness such as familiarity or knowledge.

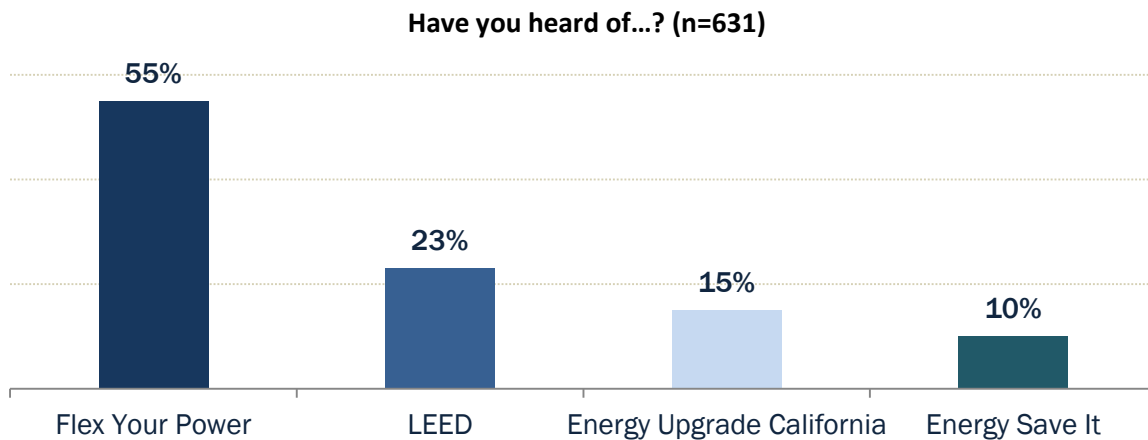
Figure 37. Awareness of Energy Upgrade California by Region



\* Indicates result is significantly different from San Diego at the 90% level.

Figure 38 helps to provide context around this finding by highlighting responses related to the other campaigns. In general, fewer respondents were aware of Energy Upgrade California than other initiatives such as LEED and Flex Your Power. In addition, unlike the residential population, among small businesses, the red herring, Energy Save It, was the least well-known campaign.<sup>22</sup>

Figure 38. Awareness of Energy Related Initiatives



It is also shows that awareness of Flex Your Power remains high (55%) among this population, although lower than among the full general population of residential customers. This may be attributable to the similarly named Flex Alert campaign or the result of past marketing efforts. This

<sup>22</sup> To mitigate potential positive response bias in the analysis of this question, we removed some respondents from the Energy Upgrade California aware category who said they were aware of all the brands listed, including the red herring, on the assumption that they were “red lining” through the survey.

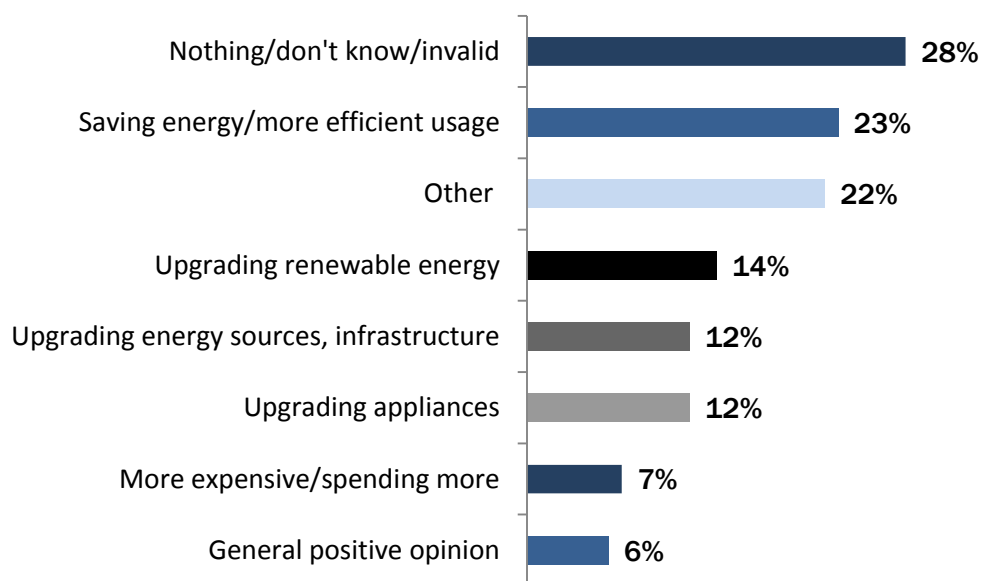
data point may be useful as it can serve as a benchmark for Energy Upgrade California over time. In short, CCSE would not expect Energy Upgrade California awareness to reach this level for quite some time.

## Brand Associations

Although Energy Upgrade California has not been directly marketed to small business customers, we wanted to get a sense of what people associated with the name. As shown in Figure 39, brand associations are somewhat weak, although the most common associations deal with saving energy or using it more efficiently, as well as upgrading energy sources and equipment. Given the wide range of responses, a number of answers to this question were coded as “other.” Examples of responses in this category include “It doesn’t sound like saving energy” or “It’s a board that people look at to see energy use in California.”

**Figure 39. Unaided Associations with Energy Upgrade California**

**What do you think of when you hear the phrase 'Energy Upgrade California'?  
(Multiple Response) (n=631)**

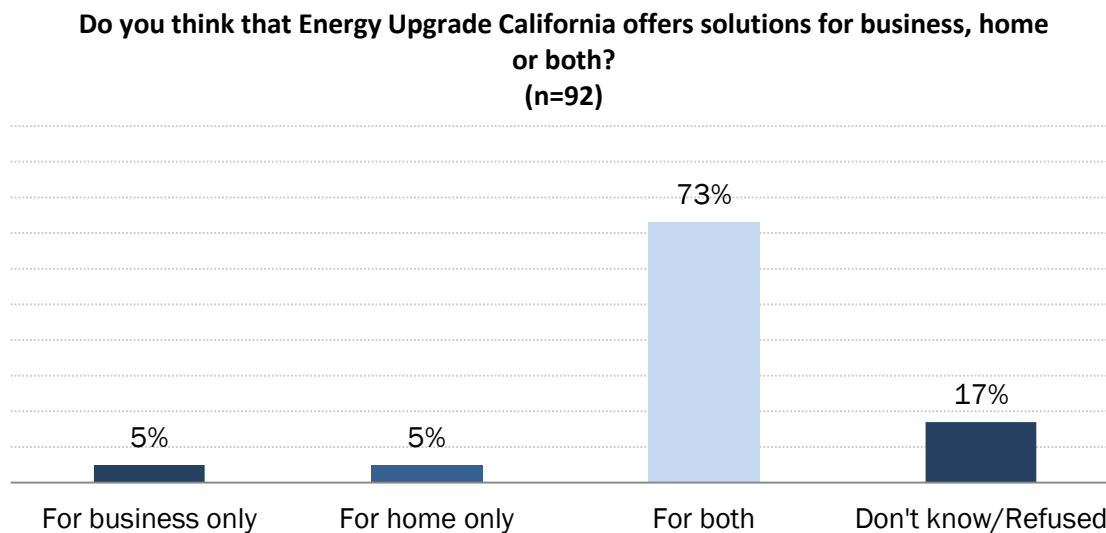


It is also interesting to note that 7% of respondents think Energy Upgrade California is associated with cost and spending. This description was also provided by participants in the Internet Panel when asked what came to mind when looking at the Energy Upgrade California logo. While only a relatively small proportion of respondents mentioned this, CCSE will want to monitor this perception as the campaign ramps up.

Given that Energy Upgrade California has only been in the market as a residential program, we asked respondents, who were aware of Energy Upgrade California, whether they thought it was a residential or business offering or if it served both sectors. As shown below, almost three quarters (72%) of respondents think Energy Upgrade California offers solutions for both business and home. This

represents a strong starting position for Energy Upgrade California as businesses are already inclined to think of Energy Upgrade California as something for their business.

**Figure 40. Energy Upgrade California Associations**



Note: Percentages do not sum to 100% due to rounding.

The telephone survey also revealed that very few small businesses had seen the Energy Upgrade California logo.<sup>23</sup> Their response was based on a description of the logo read over the phone as part of the survey effort<sup>24</sup>. This percentage is likely to rise as CCSE develops its marketing plan for small business and begin targeting them with Energy Upgrade California messaging.

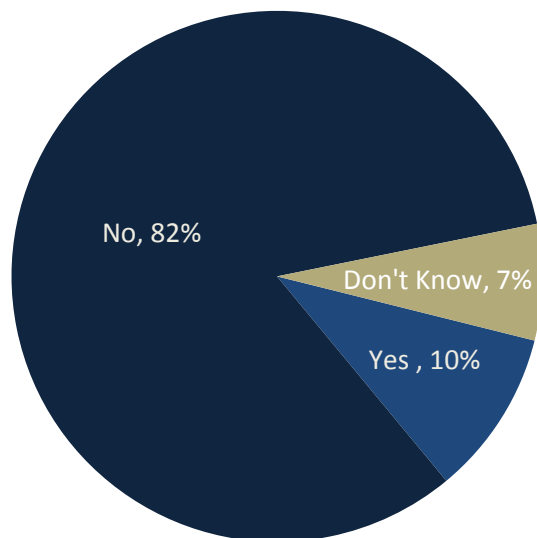
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<sup>23</sup> The Brand Assessment Study did not include a business Internet Panel.

<sup>24</sup> Notably it is challenging to accurately describe/convey a visual logo via telephone and these findings should be considered with this in mind.

**Figure 41. Logo Awareness**

**Percentage of Respondents Who Have Seen Energy Upgrade California Logo  
(n=631)**



## Energy Management Knowledge

The small business survey measured awareness and knowledge of six energy management opportunities in order to establish the level of baseline knowledge before the launch of the Energy Upgrade California campaign. The following are the detailed descriptions read to survey respondents, as well as key words used to represent the data in reporting.

- Time of Use Rates: The option to choose a plan from your utility that allows you to pay a lower rate for electricity during early morning and evening hours, and a higher rate during the day.
- Demand Response: Communication alerts that ask you to reduce electricity use at critical times like on the hottest summer afternoon
- Smart Meters: New meters that allow you to view your business's daily energy use information either through the Internet or a separate device and receive alerts for when you are using more energy than usual.<sup>25</sup>
- Utility Rebate Programs: Rebates offered through your utility for energy efficient equipment or facility improvements

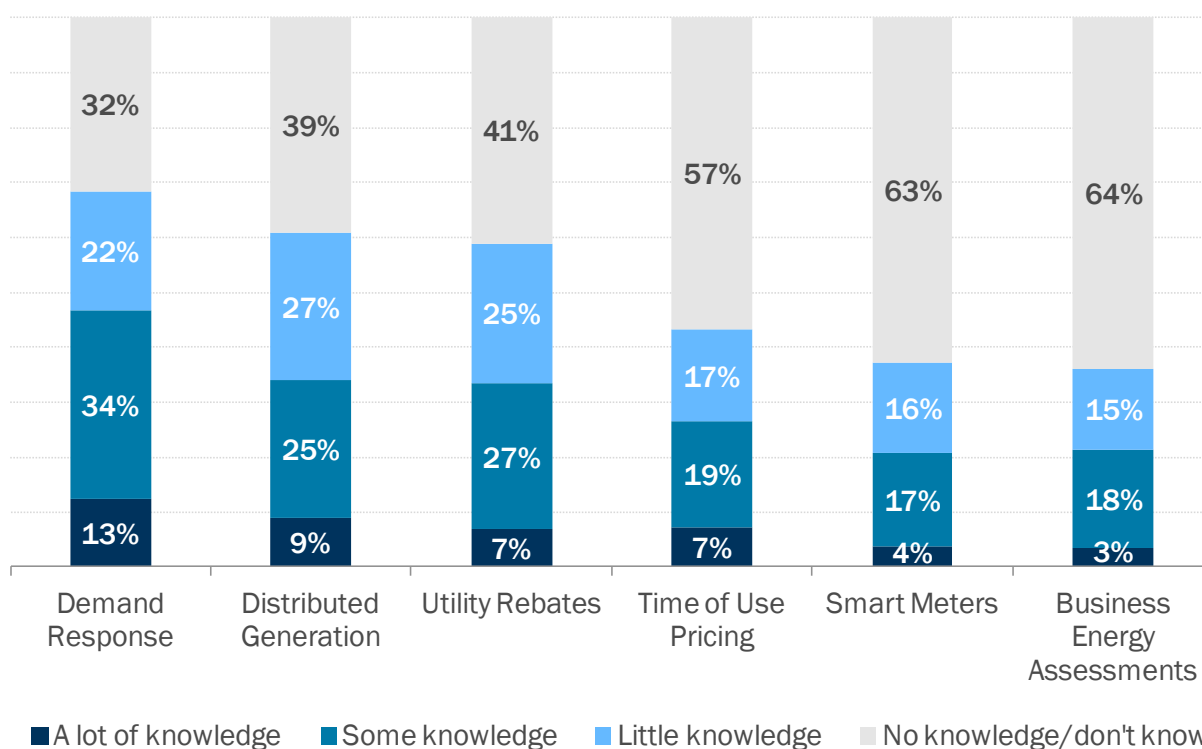
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<sup>25</sup> The research team and CCSE discussed the terminology that would best suit the respondents' knowledge in terms of "smart meters". It was collectively decided to not use the term "smart meters" and instead refer to them as "new meters" and describe their capabilities to respondents as this was likely the terminology that most respondents would understand.

- **Distributed Generation:** The opportunity to use and sell power generated from solar sources installed on your property.
- **Business Energy Assessments:** Assessments, which result in personalized recommendations on ways to decrease your energy use.

Similar to residential market, small business respondents have the highest levels of awareness and knowledge related to the demand response, distributed generation, and utility rebate concepts. Based on these results, it is clear that there is significant opportunity for CCSE to try and expand the depth of knowledge among small businesses in all of these areas.

**Figure 42. Knowledge of Energy Management Concepts (n=631)**



It is also important to note that awareness and knowledge of energy management varies based on a number of factors including ownership status, and region. As shown in Table 14, with the exception of demand response and smart meters, owners are significantly more likely to be aware of energy management concepts than those who lease their buildings.



**Table 14. Awareness of Energy Management Topics by Building Ownership Status**

Energy Management Topic	% of Owners Aware (n=191)	% of Renters Aware (n=396)
Time Of Use Pricing	55% *	41%
Utility Rebates	70% *	55%
Distributed Generation	69% *	59%
Energy Assessments	45% *	33%

\*Indicates result is significantly different from renters at the 90% level.

In addition, small businesses from Northern California are significantly more aware of time of use, smart meters, utility rebates, and distributed generation than those in Greater Los Angeles or San Diego. This is likely the result of intensive marketing efforts by PG&E with small business customers in their service territory in advance of a mandatory rate change to time of use rates.

**Table 15. Awareness of Energy Management Topics by Region**

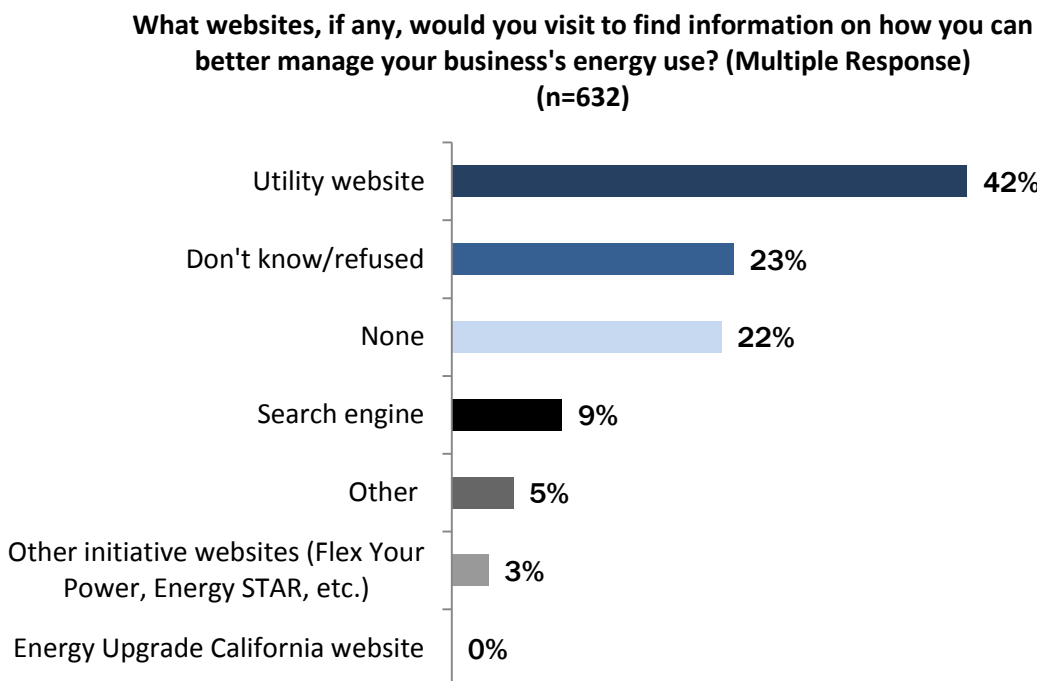
Energy Management Topic	Northern CA (n=214)	Greater LA (n=250)	San Diego (n=167)
Time Of Use Pricing	54% *†	39%	37%
Smart Meters	45% *†	36%	32%
Utility Rebates	65% *†	56%	56%
Distributed Generation	66% *	58%	62%

\*Indicates result is significantly different from Greater LA at the 90% level.

† Indicates result is significantly different from San Diego at the 90% level.

In addition to exploring levels of energy management awareness and knowledge, we asked small business respondents where they typically look for information on how to manage the business's energy use online. As shown in Figure 43, utility websites are the central online resource for small businesses while 22% do not visit websites to find this type of information.

Figure 43. Online Information Sources



### 4.3 CONTRACTOR SECTOR

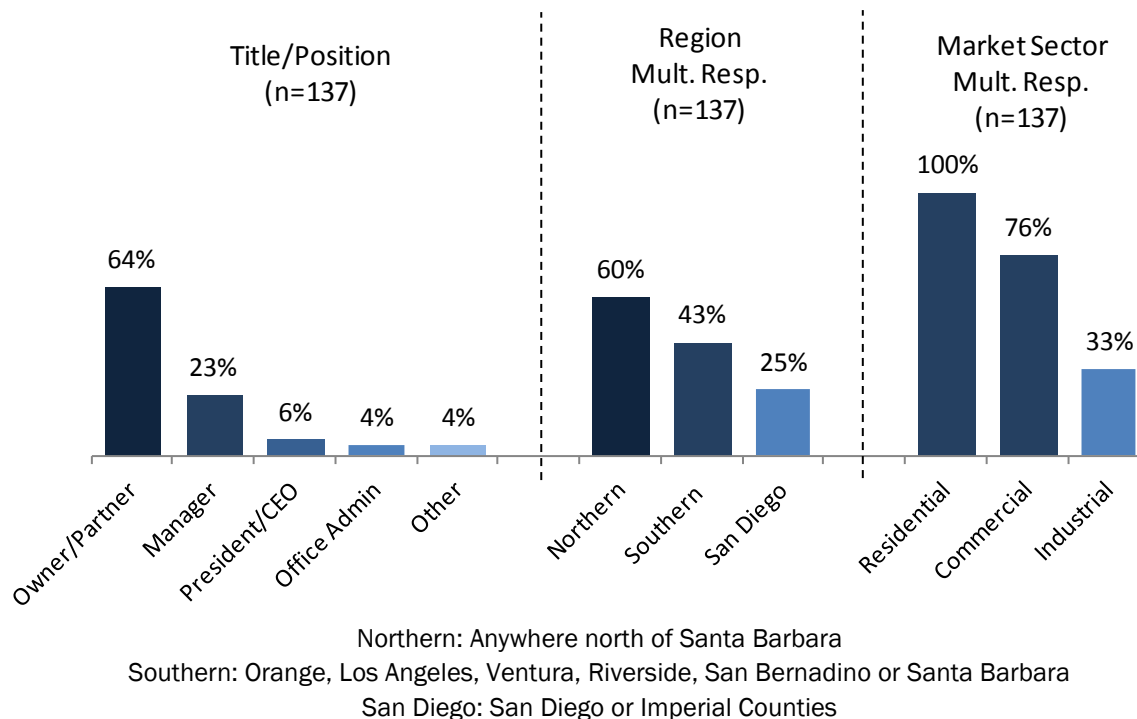
As mentioned in the method section, contractors have been a large marketing channel for the Energy Upgrade California brand as part of the Whole House program, and are expected to continue to serve as a marketing channel in the future. We conducted a survey with contractors that are participating in the Whole House program or have been targeted by the Whole House program for participation. These contractors may have been exposed to Energy Upgrade California, may have used the Energy Upgrade California brand for marketing purposes and have an impression of it. As such, CCSE is interested in their perspective of the Energy Upgrade California brand, how they have used the brand thus far, and how the future Energy Upgrade California umbrella brand might help their business. This targeted group also has a good cross-section of contractor types (including home energy assessors, HVAC contractors, solar, roofing, etc.) and targeting this specific group of contractors allows for replication in future studies.

The contractor segment is extremely important to Energy Upgrade California initiative given that contractors are often the gatekeepers to residential and small business customers. Many homeowners and small businesses rely on their contractors for energy efficient improvements and repairs. This section details the findings from the contractor surveys.

#### Contractor Characteristics

This section describes the characteristics of the contractors that responded to the survey. We mainly spoke with owners or managers. Results also represent a mix of regions served throughout the state and represent contractors that serve both the residential and commercial markets.

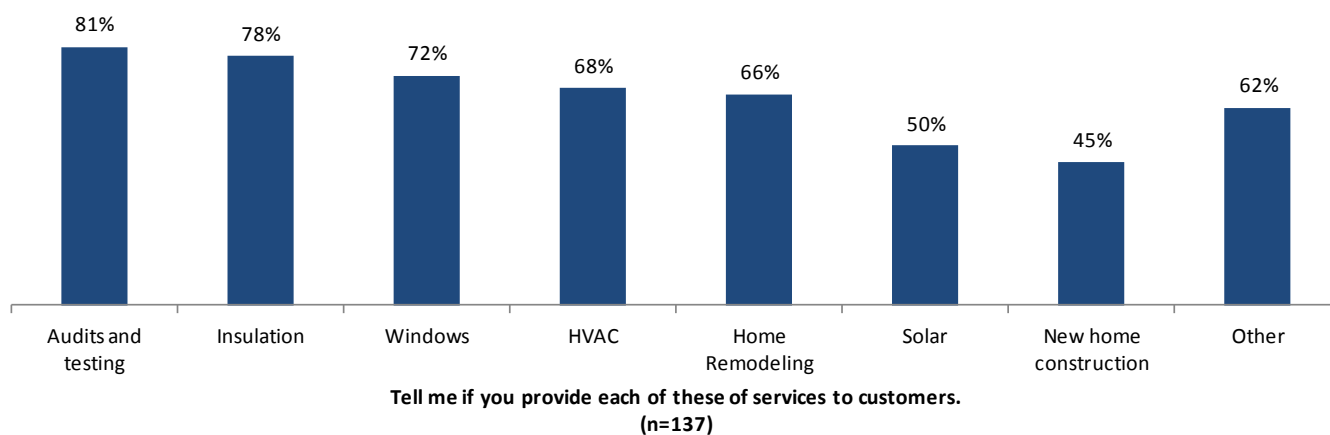
**Figure 44. Respondent Position Titles, Regions, and Market Sectors Served**



Note: Does not sum to 100% due to rounding.

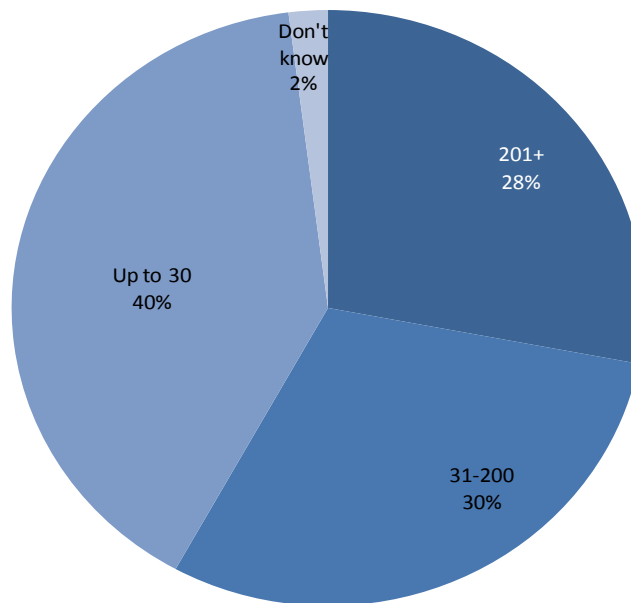
The results also represent a good mix of services offered by contractors.

**Figure 45. Types of Services Contractors Provide**



Note: "Other" category includes training/consulting/Planning, Electrical, Air Sealing, and Water heaters

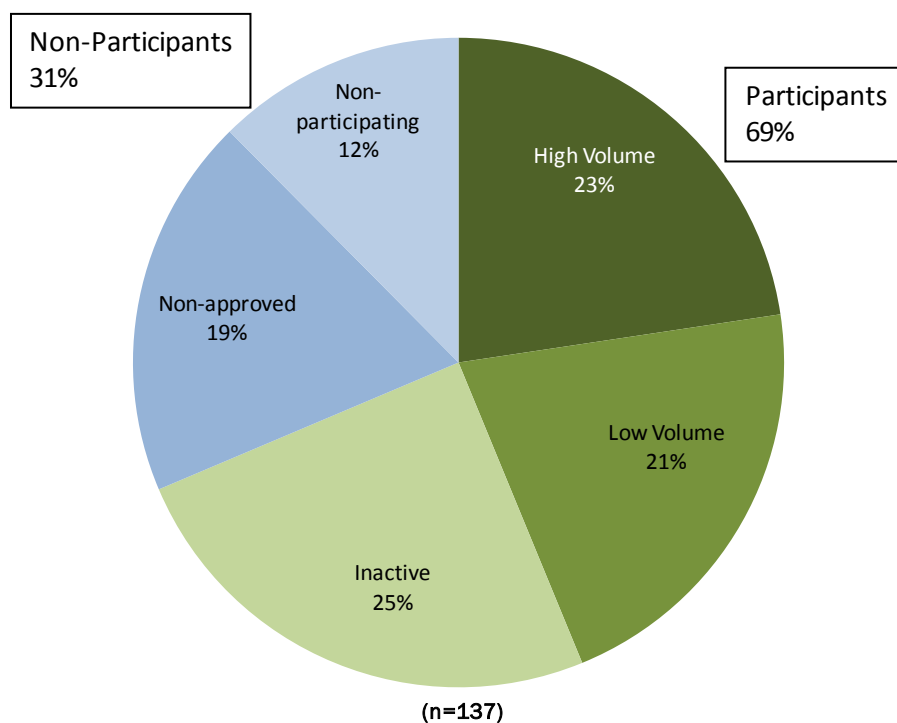
**Figure 46. Annual Number of Customer Served**



**About how many customers does your company normally serve per year?**  
(n=137)

Results also represent a range of company sizes and a good mix of the different levels of participation in the Energy Upgrade California Whole House program. We analyzed survey results by comparing Energy Upgrade California Whole House program participants to non-participants. Throughout these findings, we call out differences between these contractor types if we found significant differences.

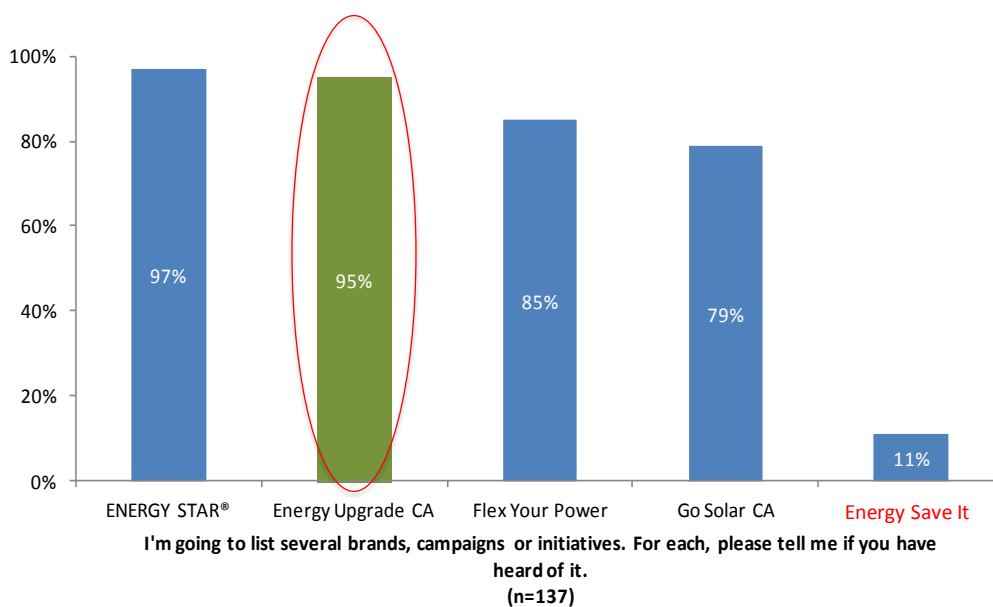
Figure 47. Contractor Energy Upgrade California Whole House Participation



### Energy Upgrade California Brand Awareness & Associations

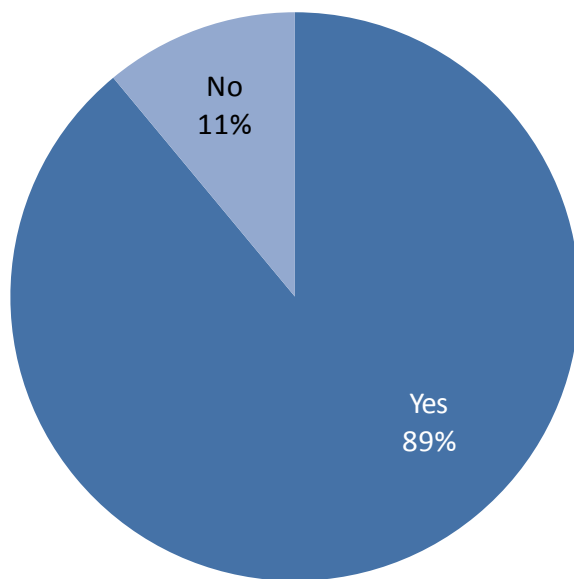
As expected, almost all contractors are aware of Energy Upgrade California. Contractors are also highly aware of other brands tested. Most contractors were able to identify the red herring in the survey as only 11% said they had heard of “Energy Save It” (as compared to 24% of the residential population and 10% of the small business respondents).

Figure 48. Energy Upgrade CA (Aided Awareness, Name Only)



Contractors are also highly aware of California's state goal to reduce energy. Energy Upgrade California awareness and awareness of California's state goals for 2020 are higher among this group than awareness among the business and residential segments.

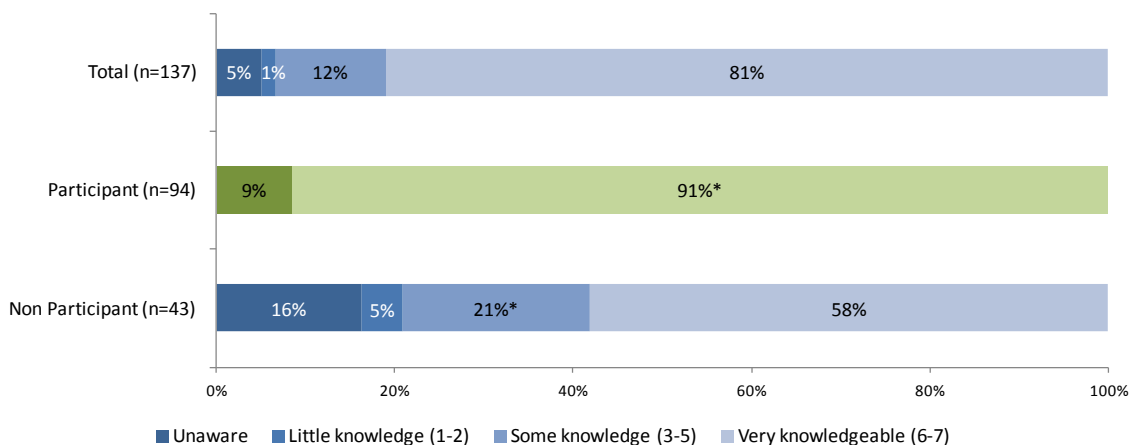
**Figure 49. California's State Goal Awareness**



California has set goals to reduce the State's energy use by the year 2020.  
Before this call, were you aware of these goals?  
(n=137)

As expected, contractors are very knowledgeable of Energy Upgrade California as 95% are aware of the brand and 81% are very knowledgeable of it. Contractors participating in the Energy Upgrade California Whole House program are more knowledgeable of Energy Upgrade California compared to non-participants.

**Figure 50. Energy Upgrade California Awareness and Familiarity**



\*Significantly different from non-participants at the 90% conference level

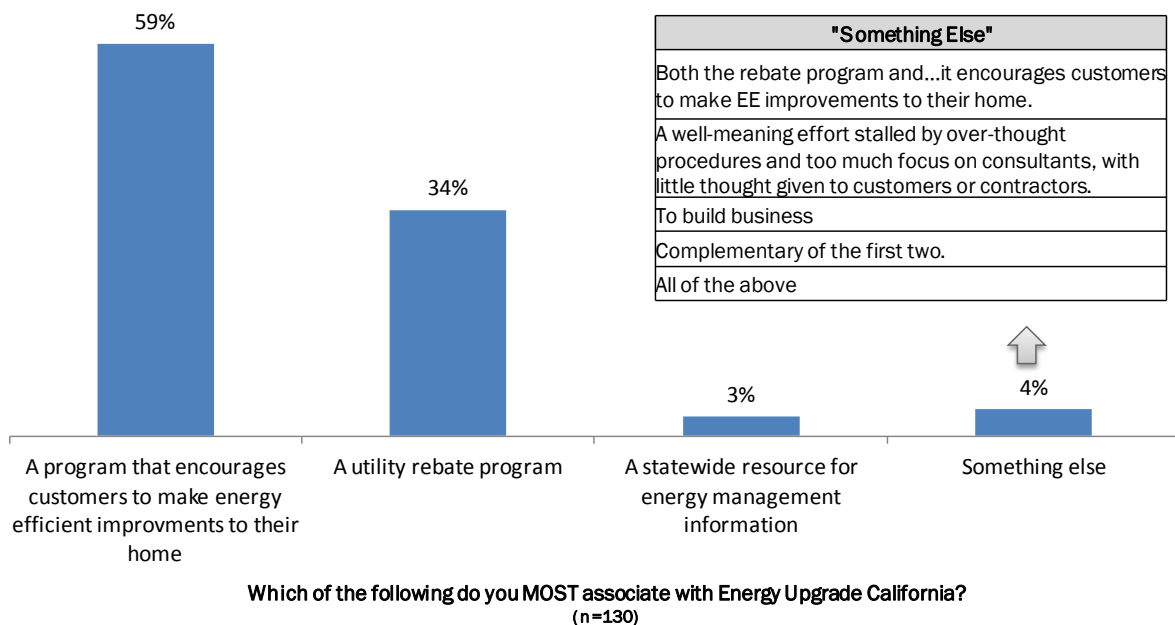
As of the time of this study, most contractors associated the name Energy Upgrade California with home retrofits and rebates, which is expected since Energy Upgrade California has been used primarily to market the Whole House program.

**Table 16. Unaided Contractor Associations with Energy Upgrade California**

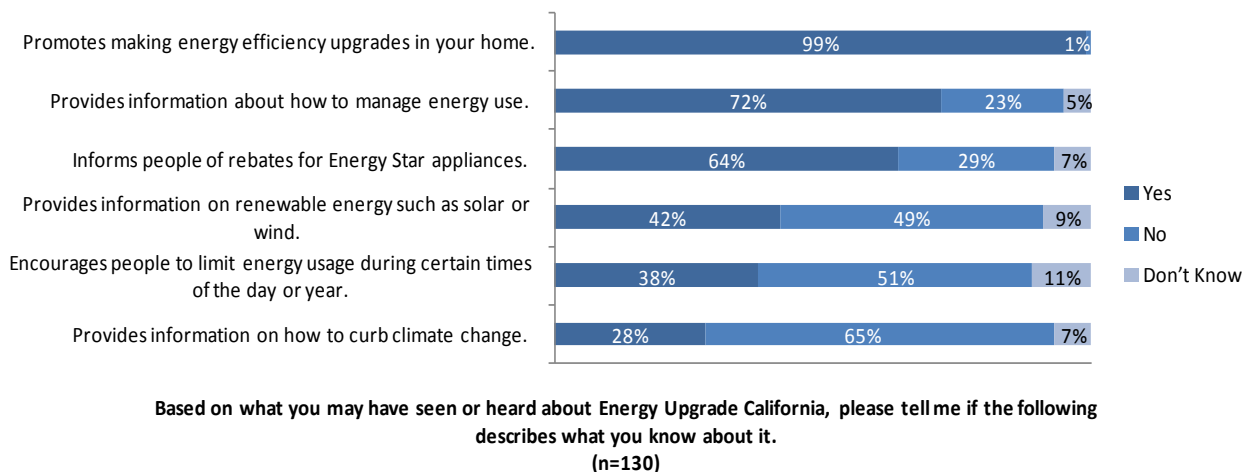
What do you think of when you hear the phrase "Energy Upgrade California"? (multiple response, unaided)	All	Participants	Non-Participants
	(n=137)	(n=94)	(n=43)
Upgrading/retrofitting homes	25%	23%	28%
Rebates/incentives (general)	22%	29%*	8%
Efficiency	12%	10%	16%
A good program/satisfied	11%	12%	11%
Initiative to save energy	11%	10%	11%
Bureaucracy/Paperwork	11%	11%	14%
More business for my company	10%	9%	17%
Expensive/wasteful	9%	10%	11%
Home performance	8%	7%	11%
Benefits the home owner / State of California	8%	10%	6%

\*Significant at the 90% confidence level compared to non-participants.

As mentioned earlier, CCSE has expressed that they would like the name to be expanded so that contractors and customers recognize it as a resource for energy management. As expected, very few contractors associate the brand with a resource for energy management at this time.

**Figure 51. Aided Top Brand Association (Among Energy Upgrade California Aware Contractors)**

Despite the fact that up to the time of this study, Energy Upgrade California was only used for the Whole House program, some contractors still associate Energy Upgrade California with concepts beyond the Whole House program, such as renewable energy.

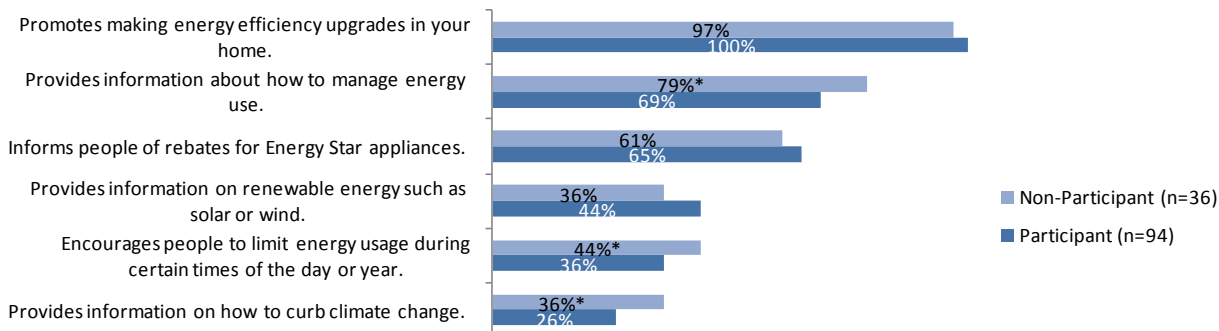
**Figure 52. Aided Brand Associations (Among Energy Upgrade California Aware Contractors)**

The following figure breaks down associations among Whole House participants and non-participants. Non-participating Whole House program contractors were more likely to associate Energy Upgrade California with concepts outside of the program, such as renewable energy and time-



of-use management, but the figure below indicates that even some participating Whole House program contractors associate it with these concepts.

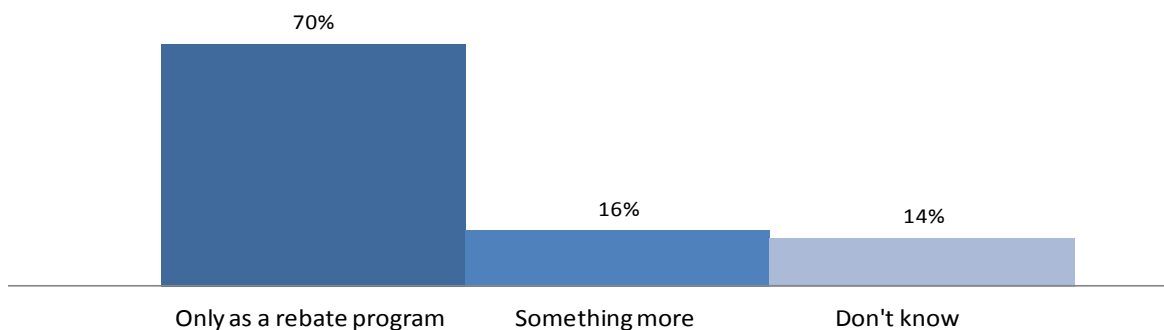
**Figure 53. Aided Brand Associations Among Participants vs. Non Participants**



Based on what you may have seen or heard about Energy Upgrade California, please tell me if the following describes what you know about it.  
(n=130)

When asked what customers think of the Energy Upgrade California brand, most contractors say customers mostly think of Energy Upgrade California as a rebate program. This is expected given that this is how most contractors view the brand at this point. This may also be indicative of how they are communicating to customers.

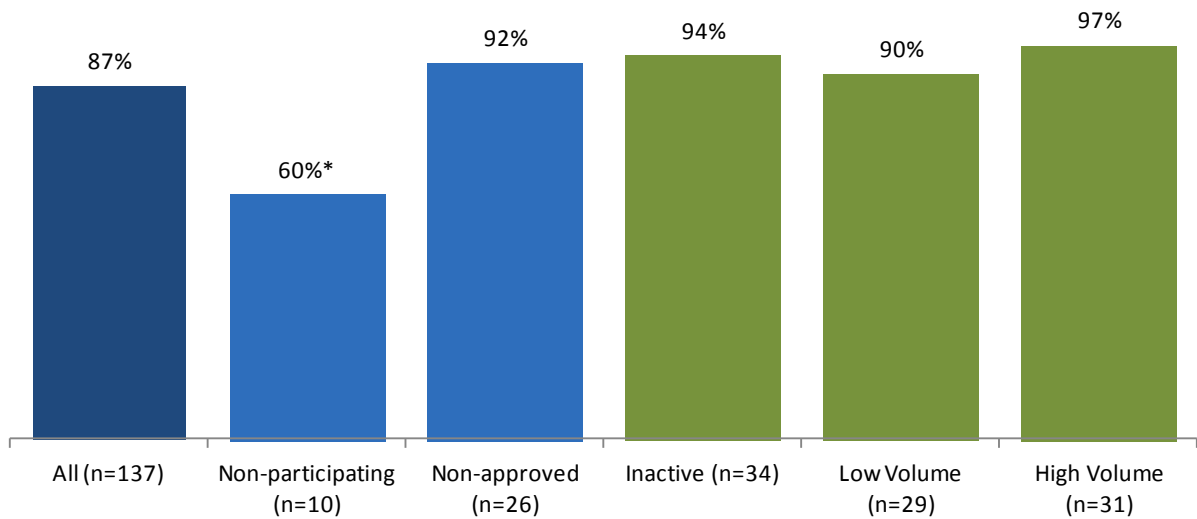
**Figure 54. Customer Perception of Energy Upgrade California Associations**



Do your customers typically view Energy Upgrade California only as a rebate program for whole house retrofits, or something more?  
(n=130)

Energy Upgrade California website awareness is high among contractors. As expected, website awareness is lower among true non-participants (contractors that have not attempted to participate in the Whole House program).

**Figure 55. Energy Upgrade California Website Awareness**

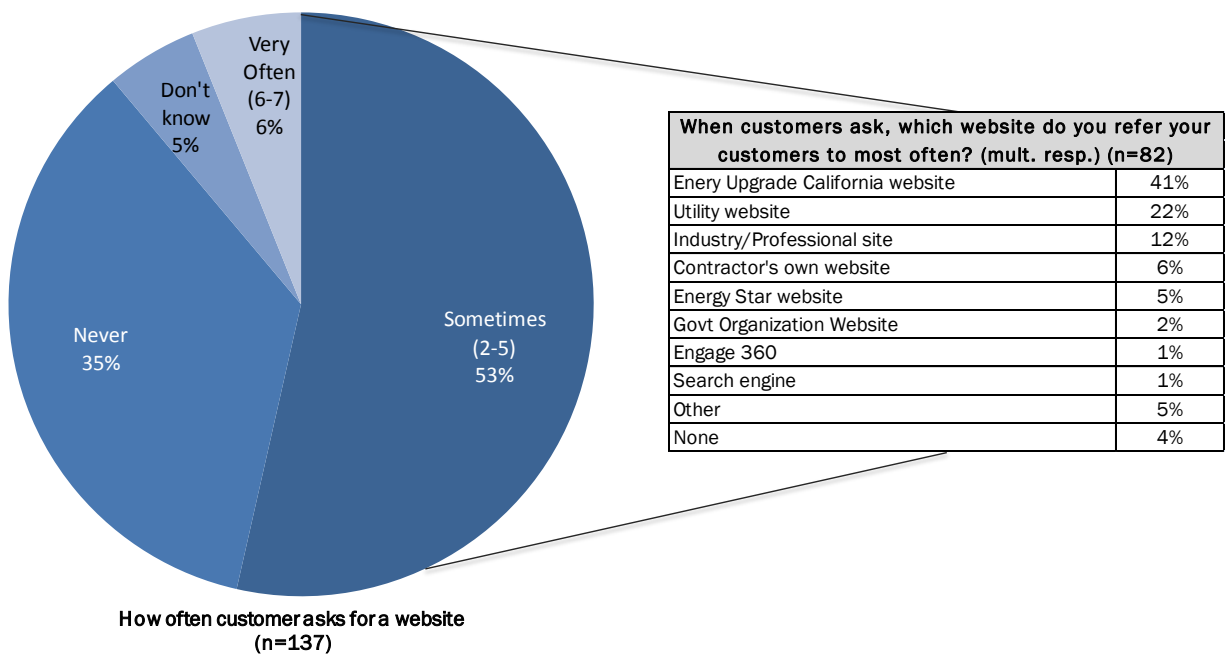


**Have you ever heard of a website called [energyupgradeca.org](http://energyupgradeca.org)?**

\*Significant at 90% compared to all other contractor types.

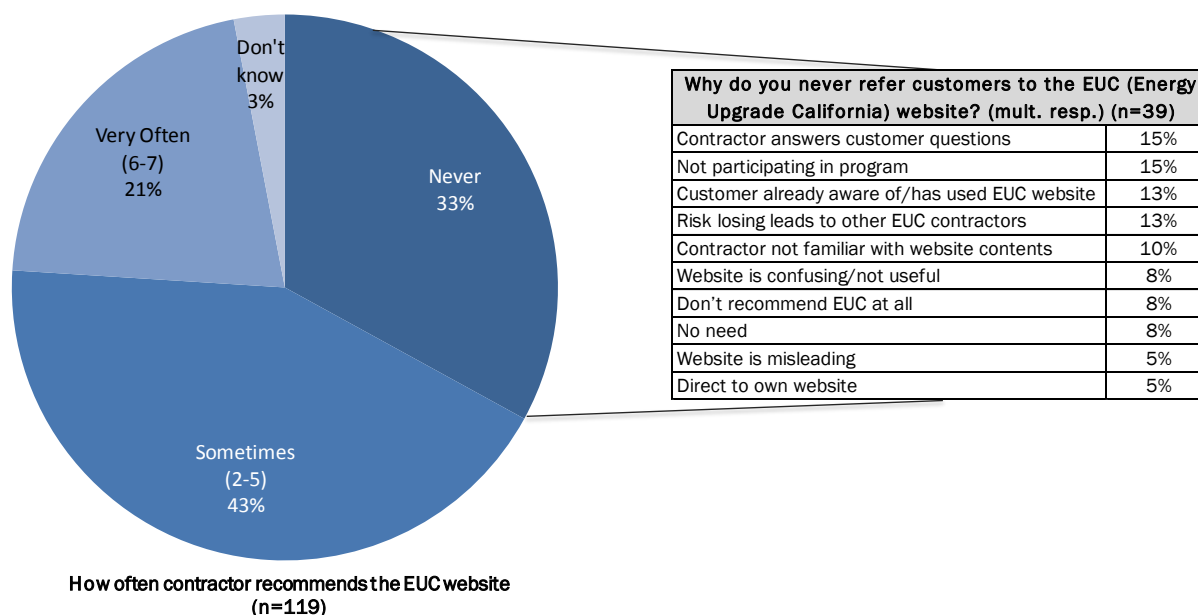
CCSE was interested in how often customers ask contractors for a website to help them learn about ways to save energy. Results show that some (59%) customers do ask for a website and when they do, contractors most often refer them to the Energy Upgrade California website or a utility website.

Figure 56. Website Requests



Contractors who were aware of the Energy Upgrade California website were asked how often they recommend the Energy Upgrade California website. Only 21% recommend it very often and 33% said they never refer customers to the Energy Upgrade California website. The most common reasons for why contractors never refer customers to the website are because the contractor is able to answer customer questions, the contractor is not participating in the Whole House program, the customer is already aware of the website and does not need a referral, or because the contractor might risk referring customers to a website that lists competitors which may lead to losing business. Notably, the current Energy Upgrade California website provides limited information and thus would not be a useful resource for energy management information at the time this study was conducted. This may also explain why contractors have not been referring customers to this site. Furthermore, these data highlight the importance of ensuring that contractors know about the changing nature of the Energy Upgrade California website so they become familiar with its future content and understand that it will have broader appeal as an energy management resource than its current form.

Figure 57. Website Referrals



## Brand Use in Marketing

Throughout these findings, contractors were responding to how they have used the brand as it relates specifically to the Whole House program. We asked contractors whether they use the Energy Upgrade California brand in marketing or sales efforts. About half of them (49%) said they use the Energy Upgrade California name (61% of participants and 23% of non-participants). It is interesting to note that even some non-participants use the brand.

Table 17. Contractor Energy Upgrade California Brand Use

	Energy Upgrade California Whole House Participants	Energy Upgrade California Whole House Non-Participants	Total
Total Completes (n)	94	43	137
Energy Upgrade California Aware (n)	94	36	130
Using brand (n)	57	10	67
Using brand (% based on total completes)	61%	23%	49%

Some use the brand by co-branding online, in flyers or business cards while some use it when talking to customers one-on-one or at events. Among the 51% of contractors that have not been using the Energy Upgrade California brand in marketing and sales, some are not using it because they are not participating in the whole house program; However, some of these contractors are participating in the program but are not using the brand in marketing because their company does not do much marketing, they do not have the time, or think it will not help them sell services because people are

not aware of the Energy Upgrade California brand. Results in total, and by participant and non-participant groups, are shown in the table below.

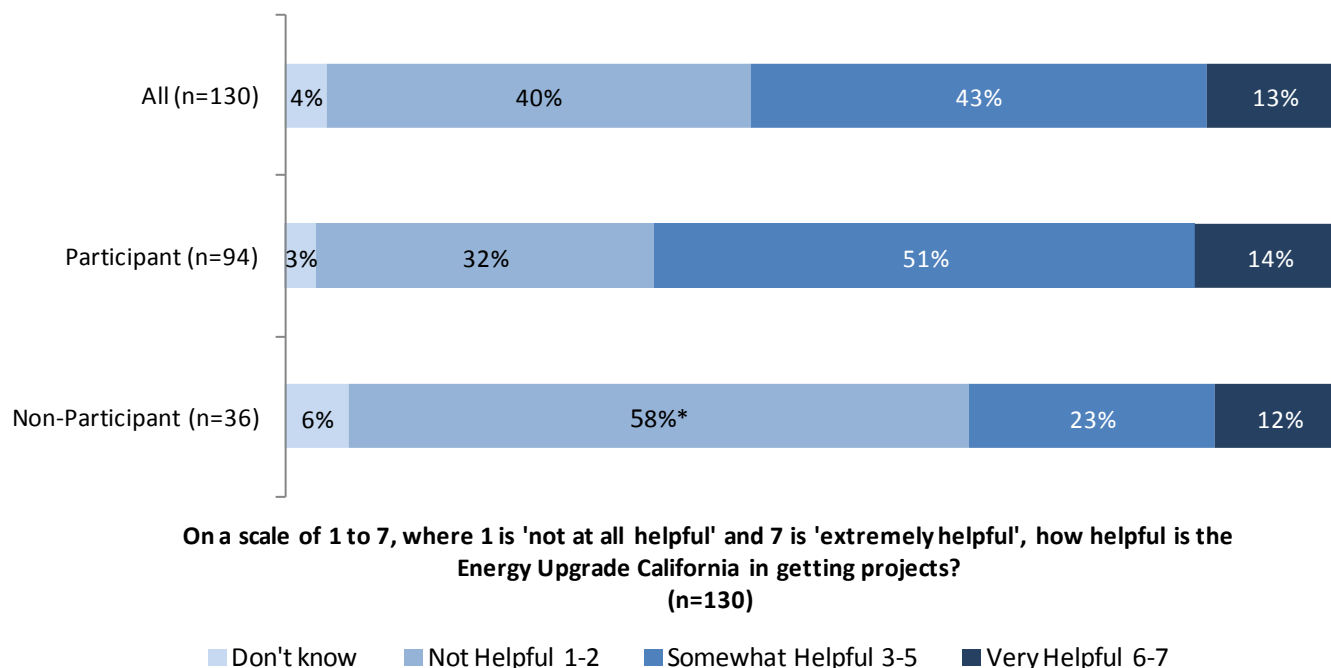
**Table 18. Energy Upgrade California Brand Use in Marketing (Among Energy Upgrade California Aware Contractors)**

<b>How contractors use Energy Upgrade California brand in marketing</b>	<b>Total (n=67)</b>	<b>Whole House Participant (n=57)</b>	<b>Whole House Non-Participant (n=10)</b>
Cobranded online	22%	25%	10%
Discuss Energy Upgrade California over phone/in person	21%	21%	20%
Cobranded Flyer	19%	19%	20%
Cobranded Business Cards/ Signage	16%	19%	-
General promotion	16%	18%	10%
At Public Events	12%	12%	10%
Energy Upgrade California Website	9%	9%	10%
<b>Why contractors do not use Energy Upgrade California brand in marketing</b>	<b>Total (n=62)</b>	<b>Whole House Participant (n=36)</b>	<b>Whole House Non-Participant (n=26)</b>
Not Energy Upgrade California Participant/ No longer participating	19%	11%	31%*
Contractor does not market	18%	25%*	8%
No time/interest/need	18%	17%	19%
Lack of customer awareness	11%	14%	8%
Difficulty getting approved	10%	8%	12%
Program not worth extra work	10%	14%	4%

\*Statistically significant difference at 90% confidence level

When asked whether the Energy Upgrade California brand has been helpful in getting contractors' business, results were mixed. Most contractors said the brand has been somewhat helpful in procuring business so far. Again, contractors were responding in the context of the Whole House program.

**Figure 58. Energy Upgrade California Brand Aid in Procuring Business (Among Energy Upgrade California Aware Contractors)**

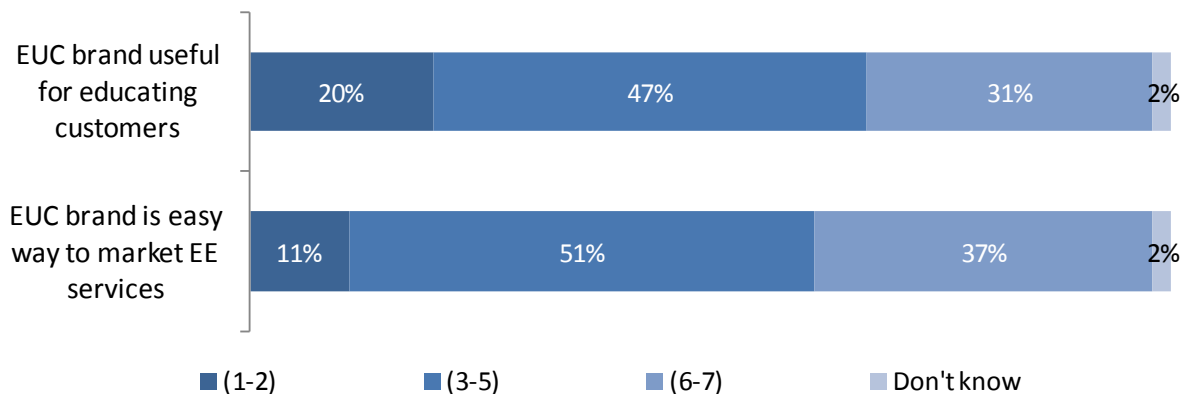


Note: Does not sum to 100% due to rounding.

\*Significant at the 90% level

Contractors were asked whether the Energy Upgrade California brand was useful for educating customers and whether it is an easy way to market energy efficient services. About 1/3 of contractors strongly agreed that the brand is useful for educating customers and easy to market. It is possible that many contractors do not think that the brand name was useful to them gaining Whole House participant customers and therefore do not think it is useful at this time in educating customers. It is also possible that the complexity of the Whole House program is difficult to explain to customers and do not think the brand has helped to reduce that complexity. The perceptions shown here are closely tied to contractors' experiences with the brand as it relates to the Whole House program and these perceptions may change when the brand is expanded.

**Figure 59. Energy Upgrade California Usefulness and Ease**

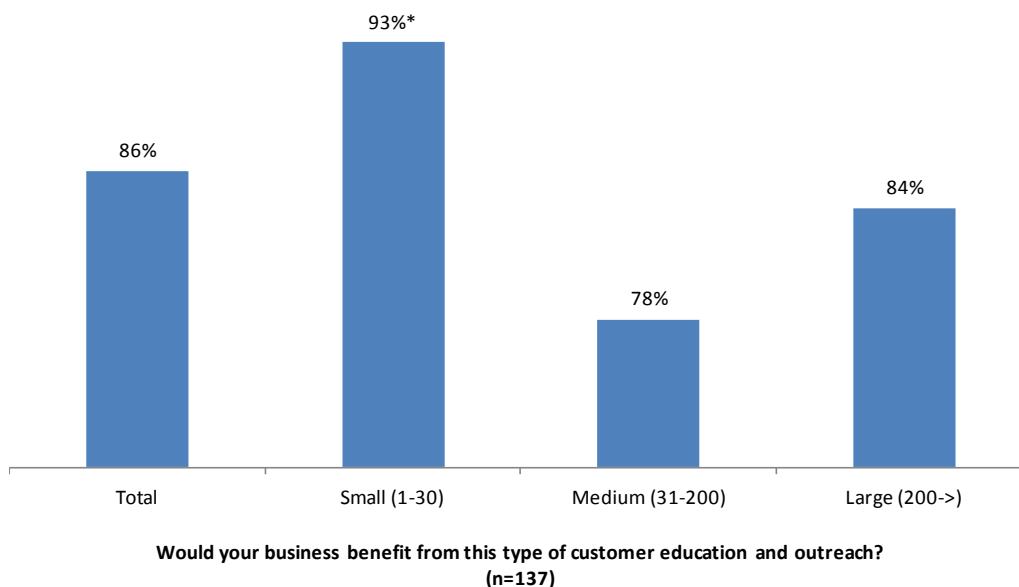


On a 7-point scale, where 1 is “strongly disagree” and 7 is “strongly agree”, please tell me how much you agree or disagree with the following statements...  
(n=130)

Note: Does not sum to 100% due to rounding.

All contractors were told in the survey that the name “Energy Upgrade California” was used to market a program designed to assist homeowners in making energy efficiency improvements to their homes and that, in 2013, Energy Upgrade California will launch a marketing and education campaign to promote a wide variety of programs, products and services to help Californian’s manage their energy use. Contractors were then asked if their business would benefit from this type of expanded customer education and outreach. Most contractors think the broadened scope of Energy Upgrade California will benefit their business, especially smaller contractors.

**Figure 60. Percentage that would benefit from a Broadened Energy Upgrade California Marketing Campaign**



## **4.4 CONCLUSIONS IN BRIEF**

In conclusion, there is an open door for California to change and expand the Energy Upgrade California brand from the general market's perspective, given that many people are unaware of it and those who are aware of it are not strongly connected to Whole House program. In addition, most residents think the brand generally relates to broad concepts of saving energy and making changes to homes or behaviors that save energy.

This is also true for the small business community. Given the limited Energy Upgrade California awareness among small businesses, as well as their loose associations with the brand (e.g. savings energy and upgrading energy sources and equipment), CCSE has the freedom to redefine the brand for this market. In particular, a key asset in expanding the brand is the sense among small businesses that Energy Upgrade California offers solutions to businesses, as well as residential customers.

Specifically for contractors, we recommend that the future Energy Upgrade California campaign engage contractors in the transition process so they are aware of the change. It will be important to clearly communicate the value of the new Energy Upgrade California initiative to contractors and their customers so that contractors stay engaged in the initiative and continue to help educate customers.



## 5. LESSONS LEARNED AND RECOMMENDATIONS FOR FUTURE RESEARCH

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The team encountered a number of methodological challenges in implementing this study which produced some lessons learned that should be considered for future research. This section highlights a few of these lessons learned and recommendations for future Energy Upgrade California brand assessment research.

This study presented a unique challenge in trying to represent the general residential population in CA while also attempting to get enough representation of key demographic groups and geographic regions to allow for statewide and sub-group analysis. This challenge required knowledge of population characteristics and several weighting schemes. The sample and weighting design should be replicated as much as possible when conducting future research for tracking purposes.

The small business survey effort presented some unique challenges when compared to the residential sector. The most critical was the need to reach individuals with decision-making authority for the business. Given the very small number of staff at the majority of businesses interviewed, we often found that only one or two staff members, and not the owner or senior decision-maker, might be working at a time. This is particularly true of small convenience and other retail locations. Therefore, small business data collection typically takes multiple call-backs and scheduling for call-backs to reach the person of interest and future research with this segment should plan for at least four weeks of data collection. We also found more success reaching small businesses Tuesday through Thursday and between the hours of 10am and 3pm than other days or times.

Another consideration for the team and CCSE in conducting this study was how best to visually present the Energy Upgrade California logo and past marketing material while reconciling data from two sources. The telephone survey at the core of this study given its representative nature could not provide an opportunity to display Energy Upgrade California collateral, which prompted the inclusion of the Internet panel. However, the two surveys contained some overlapping questions and therefore slightly different data each with its own biases. We recommend the inclusion of an Internet based data collection tool in future assessments, but care should be taken in the design and review of instruments to minimize overlap and in planning for how the results will be used.

When assessing awareness and knowledge of smart meters, the research team and CCSE discussed the terminology that would best suit the respondents' terminology. There was concern that people may know of new meters but would not know they are called "smart meters" or conversely that people may say they are aware of "smart meters" because they have heard the name but would not know how they are different from other meters in terms of capability. It was collectively decided to not use the term "smart meters" and instead refer to them as "new meters" and describe their capabilities to respondents as this was likely the terminology that most respondents would understand. However, as Californians become more knowledgeable about smart meters, future studies may consider using the term "smart meters" to assess awareness and knowledge.



## A. APPENDIX: ANALYTICAL METHODS

### GENERAL POPULATION WEIGHTING

Opinion Dynamics used a stratified random sample for the general population survey. We initially stratified by region and ethnicity-language group, but allowed the sample to fall naturally by gender and homeownership within the initial stratification groups. However, age was monitored throughout the survey process to ensure that residents ages 55 and over did not dominate the study. After the bulk of the interviews were completed, we reviewed the distribution of respondents by the original stratification categories as well as by demographic variables. We also assessed where additional interviewing would make a significant difference in our ability to achieve acceptable confidence and precision levels. In addition, we considered where increases would reduce the size of the weights.

Our analysis before and after completing the additional interviews revealed that the demographic variables of gender, education, and homeownership did not require weighting or sampling adjustments, but that age did. Specifically, residents of ages 21-54 were slightly under-represented despite efforts to minimize this during the fielding process. Phone type used (cell versus landline) was also a factor that suggested consideration of additional weighting. Ideally, we would weight by both, but creating the number of strata required for this approach produced cell sizes that were not large enough to support a weight that is stable. For this reason, we had to choose between Age and Phone type used to add to the base weights generated from Region and Ethnicity. Between these two choices, age had the larger effect, and produced fewer very small cell sizes. In addition, Age and Phone type used are somewhat correlated ( $r=.11$ , which is small but statistically significant) meaning that some portion of variation resulting from under-representing cell phone users will be accounted for by weighting for Age. As a result, all further interviews and weighting schemes account for age. Additional interviews were also completed for some Asian-American, Hispanics, greater Los Angeles, and greater San Diego cells.

After completion of the supplemental interviews, the distributions, the precision estimates for subgroups, and the weights needed for representation were improved. **Error! Reference source not found.** shows the final, unweighted, sample size by weighting categories.

**Table 19. Final Sample Size by Ethnicity, Region, and Age**

Region	Age	White and All Others	African American	Asian American	Hispanic (English)	Hispanic (Spanish)	Totals
Northern	21 to 54	152	37	87	70	49	395
	55 and over	160	63	18	22	9	272
Greater Los Angeles	21 to 54	152	92	75	155	80	554
	55 and over	162	145	21	40	31	399
Greater San Diego	21 to 54	52	11	29	62	34	188
	55 and over	131	23	8	22	8	192

When weighting a sample, it is important to note that it is not advisable to use weights that are very different from one another. There are specific measures of this kind of difference, and general guidelines about how large a difference is tolerable. A measure of the difference in weights is the Unequal Weighting Effect (UWE), which is calculated as:

$$UWE=1+cv^2$$

Where: UWE = Unequal Weighting Effect

cv = Coefficient of Variation of the Sample Weights

In general, a UWE of more than 5 is considered too large, and an indication that some modifications to the sample or the weights should be made (Levy & Lemeshow, 2008). The UWE for this sample when using overall weights for the population is acceptable at 1.33.

Separate weights were also calculated for use when estimating awareness levels for regions, where ethnicity and age must be adjusted, and for ethnicity where region and age must be adjusted. The UWEs for weighting regional estimates are 1.02 for the Northern region, 1.01 for the Greater Los Angeles region, and 1.03 for the Greater San Diego region. The UWEs for weighting estimates for ethnicities are 1.18 for White and all others, 1.39 for African-Americans, 1.21 for Asian-Americans, 1.13 for Hispanics-English speaking, and 1.13 for Hispanics-Spanish speaking. A final set of weights were calculated for reporting all Hispanics together. This weighting scheme produced a 1.12 UWE for the Hispanic group. All UWEs are well within acceptable limits. All weighting schemes, together with the population and sample numbers on which they are based, are in the tables below.

**Table 20. Stratified Population and Sample Sizes, and Resulting Weights Based on Whole Population**

Population							
Region	Age	White and All Others	African American	Asian American	Hispanic (English)	Hispanic (Spanish)	Totals
Northern	21 to 54	5,183,255	548,775	1,212,217	1,241,583	1,241,583	9,427,411
	55 and over	3,313,884	282,702	624,475	370,862	370,862	4,962,786
Greater Los Angeles	21 to 54	5,160,243	896,470	1,252,303	3,042,143	3,042,143	13,393,302
	55 and over	3,299,172	461,818	645,126	908,692	908,692	6,223,500
Greater San Diego	21 to 54	1,138,714	114,120	179,966	361,702	361,702	2,156,203
	55 and over	728,030	58,789	92,710	108,041	108,041	1,095,610
Northern	21 to 54	13.91%	1.47%	3.25%	3.33%	3.33%	25.30%
	55 and over	8.89%	0.76%	1.68%	1.00%	1.00%	13.32%
Greater Los Angeles	21 to 54	13.85%	2.41%	3.36%	8.16%	8.16%	35.95%
	55 and	8.85%	1.24%	1.73%	2.44%	2.44%	16.70%

Population							
	over						
Greater San Diego	21 to 54	3.06%	0.31%	0.48%	0.97%	0.97%	5.79%
	55 and over	1.95%	0.16%	0.25%	0.29%	0.29%	2.94%
Sample							
Northern	21 to 54	152	37	87	70	49	395
	55 and over	160	63	18	22	9	272
Greater Los Angeles	21 to 54	152	92	75	155	80	554
	55 and over	162	145	21	40	31	399
Greater San Diego	21 to 54	52	11	29	62	34	188
	55 and over	131	23	8	22	8	192
Northern	21 to 54	7.60%	1.85%	4.35%	3.50%	2.45%	19.75%
	55 and over	8.00%	3.15%	0.90%	1.10%	0.45%	13.60%
Greater Los Angeles	21 to 54	7.60%	4.60%	3.75%	7.75%	4.00%	27.70%
	55 and over	8.10%	7.25%	1.05%	2.00%	1.55%	19.95%
Greater San Diego	21 to 54	2.60%	0.55%	1.45%	3.10%	1.70%	9.40%
	55 and over	6.55%	1.15%	0.40%	1.10%	0.40%	9.60%
Weights							
Northern	21 to 54	1.83	0.80	0.75	0.95	1.36	
	55 and over	1.11	0.24	1.86	0.90	2.21	
Greater Los Angeles	21 to 54	1.82	0.52	0.90	1.05	2.04	
	55 and over	1.09	0.17	1.65	1.22	1.57	
Greater San Diego	21 to 54	1.18	0.56	0.33	0.31	0.57	
	55 and over	0.30	0.14	0.62	0.26	0.72	

**Table 21. Proportions and Weights for Use in Estimates within Ethnicity**

Population						
Region	Age	White and All Others	African American	Asian American	Hispanic (English)	Hispanic (Spanish)
Northern	21 to 54	27.54%	23.23%	30.25%	20.58%	20.58%
	55 and over	17.61%	11.97%	15.59%	6.15%	6.15%
Greater Los Angeles	21 to 54	27.41%	37.94%	31.25%	50.42%	50.42%
	55 and over	17.53%	19.55%	16.10%	15.06%	15.06%
Greater San Diego	21 to 54	6.05%	4.83%	4.49%	6.00%	6.00%
	55 and over	3.87%	2.49%	2.31%	1.79%	1.79%
Sample						
Northern	21 to 54	18.79%	9.97%	36.55%	18.87%	23.22%
	55 and over	19.78%	16.98%	7.56%	5.93%	4.27%
Greater Los Angeles	21 to 54	18.79%	24.80%	31.51%	41.78%	37.91%
	55 and over	20.02%	39.08%	8.82%	10.78%	14.69%
Greater San Diego	21 to 54	6.43%	2.96%	12.18%	16.71%	16.11%
	55 and over	16.19%	6.20%	3.36%	5.93%	3.79%
Weights for Ethnicity Estimates						
Northern	21 to 54	1.47	2.33	0.83	1.09	0.89
	55 and over	0.89	0.70	2.06	1.04	1.44
Greater Los Angeles	21 to 54	1.46	1.53	0.99	1.21	1.33
	55 and over	0.88	0.50	1.82	1.40	1.03
Greater San Diego	21 to 54	0.94	1.63	0.37	0.36	0.37
	55 and over	0.24	0.40	0.69	0.30	0.47
UWE		1.18	1.39	1.21	1.13	1.13

Table 22. Proportions and Weights for Use in Estimates within Region

Population							
Region	Age	White and All Others	African American	Asian American	Hispanic (English)	Hispanic (Spanish)	
Northern	21 to 54	36.02%	3.81%	8.42%	8.63%	8.63%	
	55 and over	23.03%	1.96%	4.34%	2.58%	2.58%	
Greater Los Angeles	21 to 54	26.31%	4.57%	6.38%	15.51%	15.51%	
	55 and over	16.82%	2.35%	3.29%	4.63%	4.63%	
Greater San Diego	21 to 54	35.02%	3.51%	5.53%	11.12%	11.12%	
	55 and over	22.39%	1.81%	2.85%	3.32%	3.32%	
Sample							
Northern	21 to 54	22.79%	5.55%	13.04%	10.49%	7.35%	
	55 and over	23.99%	9.45%	2.70%	3.30%	1.35%	
Greater Los Angeles	21 to 54	15.95%	9.65%	7.87%	16.26%	8.39%	
	55 and over	17.00%	15.22%	2.20%	4.20%	3.25%	
Greater San Diego	21 to 54	13.68%	2.89%	7.63%	16.32%	8.95%	
	55 and over	34.47%	6.05%	2.11%	5.79%	2.11%	
Weights for Regional Estimates							UWE
Northern	21 to 54	1.58	0.69	0.65	0.82	1.17	1.02
	55 and over	0.96	0.21	1.61	0.78	1.91	
Greater Los Angeles	21 to 54	1.65	0.47	0.81	0.95	1.85	1.01
	55 and over	0.99	0.15	1.49	1.10	1.42	
Greater San Diego	21 to 54	2.56	1.21	0.73	0.68	1.24	1.03
	55 and over	0.65	0.30	1.35	0.57	1.58	

## DETECTING CHANGES OVER TIME

Since there is a desire to do follow-up surveys in the future to assess the effectiveness of future Energy Upgrade California campaigns or initiatives, Opinion Dynamics has calculated approximate levels of change that can likely be detected in the future, given the same sample size and given the starting awareness level of each group. Table 23 shows the level of change, in percentage points, for each group and overall. These numbers are approximate since these estimates do not take weighting into account.

**Table 23. Approximate Levels of Change That Can Be Detected in a Future Survey at 90/10\***

Group	Actual Baseline n	% Aware of Energy Upgrade California	Change in Awareness
Overall	2000	17%	2 pts
White & All Others	809	14%	3 pts
African American	371	23%	5-6 pts
Asian American	238	14%	6 pts
Hispanic	582	22%	4-5 pts
Northern California	667	17%	3-4 pts
Greater Los Angeles	953	17%	3 pts
Greater San Diego	380	20%	5 pts
* Assumes the same sample size at next survey			

A second approach to assessing future awareness levels is to simply estimate the new awareness level as a point estimate rather than estimating change itself. Of course any future point estimate implies a level of change compared to the earlier level, but this is inferred rather than estimated directly as we do in the first method. By making various assumptions of that future level, we can make estimates of the precision we can expect at that time for that level, given the starting point of awareness for each sample design group, and assuming the same sample size in the future.

Table 24 provides a number of potential awareness levels that CCSE might be interested in estimating in the future, and shows the absolute precision levels that would be expected when they are estimated. For each reporting group, the baseline sample size, and the baseline awareness level that has been established by the current study are shown first. The next five columns of the table provide scenarios assuming, respectively, 2 percentage point increases through 6 points of increase in awareness. The cells beneath those columns indicate the absolute precision by which that awareness level can be estimated, assuming the same sample size at the future survey that has been completed for the recent one. For example, the total sample size for the current survey is 2000, and the overall awareness level for the whole sample is 17%. Looking at the columns to the right, the first indicates an increase of 2 percentage points, implying a new awareness level of 19%. If the real population awareness level is 19%, the future survey will likely estimate awareness between 17.5% and 20.5% (i.e. 19% +/- 1.5 points), with 90% confidence. On the other hand, for the African-American sample, the current awareness level of 23% leads to the conclusion that if we expect a 5-point increase in awareness, implying a level of 28%, if the true population of African-Americans is at 28% awareness, the new data would produce a level that falls between 24.2% and 31.8% with 90% confidence (i.e. 28% +/- 3.8%).



**Table 24. Absolute Precisions Anticipated for Assessing a Variety of Future Awareness Levels**

Reporting Group	Baseline N	Baseline Awareness	Increase of 2 pts	Increase of 3 pts	Increase of 4 pts	Increase of 5 pts	Increase of 6 pts
Total sample	2000	17%	1.5 pts	1.5 pts	1.5 pts	1.6 pts	1.6 pts
White & All Others	809	14%	2.1 pts	2.2 pts	2.3 pts	2.3 pts	2.3 pts
African American	371	23%	3.7 pts	3.8 pts	3.8 pts	3.8 pts	3.9 pts
Asian American	238	14%	3.9 pts	4.0 pts	4.1 pts	4.2 pts	4.3 pts
Hispanic	582	22%	3.0 pts	3.0 pts	3.0 pts	3.1 pts	3.1 pts
Northern California	667	17%	2.5 pts	2.6 pts	2.6 pts	2.7 pts	2.7 pts
Greater Los Angeles	953	17%	2.1 pts	2.1 pts	2.2 pts	2.2 pts	2.3 pts
Greater San Diego	380	20%	3.5 pts	3.6 pts	3.6 pts	3.7 pts	3.7 pts

The first method presented the possibilities of assessing change in awareness directly. If CCSE is specifically interested in determining the change in awareness levels for each group, then estimating it directly is most appropriate. However, that method is more demanding of sample sizes than is the second method, which simply estimates the awareness level at any given point in time. A reasonable level of precision can be expected for this method with a somewhat smaller sample size than is required for direct estimation of change. We have presented the two types of approaches so that CCSE can choose what is most important or most practical.

## GENERAL POPULATION SEGMENTATION

Opinion Dynamics conducted a California Segmentation study for the residential market in 2009. The study identified five distinct segments in the California residential market and identified nine key questions that can be used in an algorithm to identify the segments again in future studies. These nine key questions were asked in this study and we ran the algorithm we developed to identify the five key segments. We then ran cross-tabulations for each survey question comparing each segment to the other four segments to find significant differences at the 90% confidence level between segments. The nine questions and algorithm used to identify the five segments are available upon request.

## INTERNET PANEL WEIGHTING

After data collection was complete, the data were weighted to correct for any response bias to ensure responses are representative of the population. In addition, we developed and applied weights based on geographic region.

**Table 25. Internet Panel Weighting**

Region	% of Population	% of Completes	Weight
Northern CA	39%	45%	0.865
Greater LA	53%	47%	1.122

Region	% of Population	% of Completes	Weight
San Diego	9%	8%	1.033
<b>Total</b>	<b>100%</b>	<b>100%</b>	

Note: Percentages may not sum to 100% due to rounding.

## SMALL BUSINESS WEIGHTING

We developed and applied weights to the telephone survey data to match the composition of small business customers within the California population based on geographic region. Table 26 shows the weights for the telephone survey data.

**Table 26. Small Business Survey Weights**

Region	Completes	% of Population	% of Completes	Weight
Northern CA	214	39%	34%	1.159
Greater LA	250	51%	40%	1.293
San Diego	167	10%	26%	0.358
<b>Total</b>	<b>631</b>	<b>100%</b>	<b>100%</b>	

## B. APPENDIX: MARKETING MATERIALS

Figure 61. Free Weatherization Flyer



# FREE WEATHERIZATION - HOME IMPROVEMENTS

### What we Offer?

By meeting the income guideline and filling out a simple application you can qualify for free weatherization home improvement. The energy savings may include:

- ❖ Repair or replace heating systems
- ❖ Repair or replace water heater
- ❖ Repair or replace cooking appliances
- ❖ Microwaves
- ❖ Refrigerators
- ❖ Ceiling fans
- ❖ Ceiling Insulation
- ❖ Weather Striping
- ❖ Thermostats
- ❖ Energy efficient light bulbs
- ❖ Carbon Monoxide detector

### Weatherization Process

Once the application has been accepted, a qualified representative from the program will come to your home and do an on-site assessment.

The assessment will include an inspection of all the gas burning appliances in the home and an evaluation of any energy savings measures which can be performed within the program guidelines.

Any of the gas burning appliances which fails the Combustion appliance safety inspection may be eligible to be repaired or replaced and any energy savings measures which can be performed will be installed.

### Are you eligible?

The program is available to residents of Contra Costa County. Homeowners and renters of single family homes, apartments, or mobile homes that meet the incomes limits below are eligible.

#### 2011 WEATHERIZATION INCOME LIMITS Valid through 12/31/11

Total Members in Household	Total Monthly Gross Income (Eligible for all programs)	Total Monthly Gross Income (Eligible for partial programs)
1	\$2,072.28	\$2,482.61
2	\$2,709.90	\$3,246.49
3	\$3,347.54	\$4,010.37
4	\$3,985.16	\$4,774.25
5	\$4,622.79	\$5,538.13
6	\$5,260.42	\$6,302.01
7	\$5,379.97	\$6,445.24
8	\$5,499.53	\$6,588.47
9	\$5,619.08	\$6,731.69
10	\$5,738.64	\$6,874.92




FOR MORE INFORMATION OR AN APPLICATION  
PLEASE CALL (925) 335-2100

\*\*THIS PROJECT, PROGRAM OR SERVICE IS FUNDED IN WHOLE OR IN PART BY THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009.\*\*

Figure 62. Free Weatherization Poster (Spanish)

73%



# CLIMATIZACION GRATIS

## - MEJORAS PARA EL HOGAR

### ¿Qué le Ofrecemos?

Mediante el llenar una aplicación sencilla usted pudiese calificar para obtener servicios de climatización (weatherization). Siempre y cuando ciertos requisitos sean reunidos, usted pudiese obtener ayuda para poder ahorrar en el consumo de energía en su hogar. Dicha ayuda puede incluir:

- ❖ La reparación o reemplazamiento de los sistemas de calefacción
- ❖ La reparación o reemplazamiento del calentador de agua
- ❖ La reparación de algunos artículos de cocina que funciona con gas natural
- ❖ Microondas
- ❖ Refrigeradores
- ❖ Ventiladores de techo
- ❖ Insulación de techos
- ❖ Daños climáticos
- ❖ Termostatos
- ❖ Bombillas para luz de bajo consumo
- ❖ Detector de monóxido de carbono

### Es usted elegible para este programa?

El programa está disponible a los residentes del Condado de Contra Costa. Los propietarios y los inquilinos de hogares, de los departamentos, o de casas móviles que cumplan con ciertos límites en sus ingresos son elegibles.


2011 LIMITE DE INGRESOS PARA LA CLIMATIZACION Válido hasta 12/31/11		
Miembros del Hogar	Ingreso Mensual (Elegible para todos los programas)	Ingreso Mensual (Elegible para programa parcial)
1	\$2,072.28	\$2,482.61
2	\$2,709.90	\$3,246.49
3	\$3,347.54	\$4,010.37
4	\$3,985.16	\$4,774.25
5	\$4,622.79	\$5,538.13
6	\$5,260.42	\$6,302.01
7	\$5,379.97	\$6,445.24
8	\$5,499.53	\$6,588.47
9	\$5,619.08	\$6,731.69
10	\$5,738.64	\$6,874.92

### El Proceso de Climatización

Una vez que la solicitud ha sido aceptada, un representante calificado del programa irá a su casa y hará una evaluación.

La evaluación incluirá una inspección de todos los artefactos de gas en el hogar y una evaluación de cualquier medida de ahorro energético que se pueda efectuar dentro de los lineamientos del programa.

Cualquiera de los artefactos de gas que no cumplen con los requisitos de seguridad de combustión al ser inspeccionados pudiesen ser reparados o reemplazados. Cualquier otra medida de ahorro de energía pudiese ser efectuada.



**energy upgrade**  
CONTRA COSTA COUNTY

PARA MÁS INFORMACION O SI DESEA OBTENER UNA SOLICITUD.  
FAVOR DE LLAMAR AL (925) 335-2100

\*\*ESTE PROGRAMA, PROYECTO O SERVICIO SON FINANCIADOS SU TOTALIDAD O PARCIALMENTE POR EL ACTA DE LA RECUPERACION AMERICANA Y DE REINVERSION DEL 2009\*\*

Figure 63. Energy Upgrade California Whole House Program Statewide Brochure

### Why should you upgrade?

**Incentives**  
Depending upon the upgrade you select, you may be eligible to receive incentives of up to \$4,000. That's money in the bank for something you may have been planning to do anyway.

**Lower bills**  
Upgrading your home to be more energy efficient can mean lower bills every month.

**Comfort**  
When your home is more energy efficient, it can be more comfortable—cozy and warm in the winter and cool in the summer.

**Participating contractors**  
Contractors participating in this program are specially trained to find improvements that an average homeowner wouldn't. They may find you more energy savings that will save you money.

**The environment**  
Making your home more energy efficient helps the environment—an important step that everyone should take.



Up to \$4,000 in energy-upgrade incentives. Don't miss the window.

**Energy Upgrade California™** is brought to you in part by your local utilities:



**Pacific Gas and Electric Company**



**SOUTHERN CALIFORNIA EDISON**  
An EDISON INTERNATIONAL Company



**SDGE**  
Sempra Energy utility



**San Diego Gas & Electric**  
A Sempra Energy utility

Energy Upgrade California™ is a collaboration among California counties, cities, nonprofit organizations, the state's investor-owned utilities, and publicly owned utilities. Funding for this effort comes from the American Recovery and Reinvestment Act (ARRA), also known as federal stimulus funds, California utility ratepayers, and private contributions. Energy upgrade rebates are administered by participating utilities.

This program may be modified or terminated without prior notice and rebates are provided to qualified customers on a first-come, first-served basis until program funds are no longer available. Pacific Gas and Electric Company, Southern California Edison, Southern California Gas Company, and San Diego Gas & Electric are not responsible for any goods or services selected by the customer. The trademarks and logos used herein are the property of their respective owners.

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### What is Energy Upgrade California?

It's a limited-time opportunity to get up to \$4,000 in incentives just for making qualifying energy-efficiency upgrades to your home.

The Energy Upgrade California™ program was created to help California reduce energy use. So, if you're ready to do more than turn down your thermostat to make your home more energy efficient, consider upgrades designed to make your systems work together to help lower your utility bills.

The program is a partnership between the California Energy Commission and the California Public Utilities Commission, and it's financially supported in part by local utility companies.

Energy Upgrade California is a win-win for everyone. California wins with decreased long-term energy use, and homeowners win by saving money.

### What is a whole-house approach?

Instead of doing a few home improvements here and there to make your home more energy efficient, think about your whole home as a complete system. Heating, air conditioning, and water heating all work together to help you live comfortably while lowering your utility bills. And Energy Upgrade California gives you the professional resources you need to take a whole-house approach.

There are two upgrade packages that qualify for incentives.

**Basic Upgrade Package**  
The Basic Upgrade Package focuses on the building shell—including installing and upgrading insulation and patching ductwork. This package qualifies for incentives of up to \$1,000.

**Advanced Upgrade Package**  
The Advanced Upgrade Package is a comprehensive plan focused on the Basic Upgrade Package components, plus installing new systems (heating, cooling, and water heaters), replacing ductwork, upgrading single-pane windows, and more. This package qualifies for incentives of up to \$4,000.

Basic Package	Advanced Package Options
<ul style="list-style-type: none"> <li>Air sealing</li> <li>Attic insulation</li> <li>Duct sealing</li> <li>Hot water pipe insulation</li> <li>Thermostatic shutoff valve</li> <li>Carbon-monoxide monitor</li> <li>Combustion safety testing</li> <li>Low-flow showerheads (recommended)</li> </ul>	<p>Basic Upgrade Package plus:</p> <ul style="list-style-type: none"> <li>High-efficiency furnace</li> <li>Energy-efficient cooling</li> <li>Water heater system</li> <li>Energy-efficient windows</li> <li>Duct replacement</li> <li>Wall insulation</li> <li>Other custom energy-saving measures</li> </ul>

**How to get started.**

If you live in a single-family home, you may qualify for these types of incentives. Visit [www.EnergyUpgradeCA.org](http://www.EnergyUpgradeCA.org) for more information or contact a participating contractor for a home energy assessment.



[www.EnergyUpgradeCA.org](http://www.EnergyUpgradeCA.org)

## **C. APPENDIX: DATA COLLECTION INSTRUMENTS**

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### **General Population Survey**

Energy Upgrade California  
Brand Assessment Study  
General Residential Population Survey

#### **Introduction Survey Start**

Hello, my name is <INTERVIEWER NAME> and I'm calling from Opinion Dynamics and the State of California to conduct a brief 15 minute survey for a statewide research initiative on the topic of energy.

May I please speak with someone in your household who is over 21?

#### **Screeners and Areas to Monitor**

C1. Are you currently talking to me on a regular landline phone or a cell phone?

1. Regular landline phone
2. Cell phone
8. (Don't Know)
9. (Refused)

[If C1=2]

C2. Are you currently in a place where you can talk safely and answer my questions?

1. Yes
2. (No, schedule a call back) [SCHEDULE CALL BACK]
3. (No, do not call back) [TERMINATE]
8. (Don't know, schedule a call back) [SCHEDULE CALL BACK]
9. (Refused, schedule a callback) [SCHEDULE CALL BACK]

S1. GENDER [RECORD, DO NOT ASK]

1. (Female)
2. (Male)

TS3. In your household, which of the following activities are you involved in? Please indicate yes or no for each item.

1. (CONTINUE)

S3a. Are you involved in... Reviewing or paying your monthly electric or natural gas bill?

1. Yes
2. No
8. (Don't Know)
9. (Refused)

S3b. Are you involved in... Calling your utility company when there is a problem?

1. Yes

- 2. No
- 8. (Don't Know)
- 9. (Refused)

S3c. Are you involved in... Making decisions about buying new appliances or making improvements to your home?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

S3d. Are you involved in... Purchasing light bulbs for your home?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[IF ALL S3 A-D>1, GO BACK TO INTRO AND ASK FOR SOMEONE ELSE OR THANK AND TERMINATE]

S4. What is your zipcode? [NUMERIC OPEN END up to 5 digits, 99999=(Refused)]

[CALCULATE COUNTY AND REGION FLAGS. REGION CODES INCLUDE: 1. Northern California, 2. Greater Los Angeles, 3. Greater San Diego, TERMINATE IF NOT IN ANY REGION OR DK/REF.]

S5a. Are you of Hispanic, Latino or Spanish descent?

- 1. Yes
- 2. No
- 9. (Refused)

[ASK IF S5a =1]

S5aa. Do you speak Spanish at home?

- 1. Yes
- 2. No
- 98. (Refused)

[ASK IF S5a=1]

S5ab. How well do you speak English?

- 1. very well
- 2. well
- 3. not well
- 4. not at all
- 98. (DK)

[ASK IF NOT QS5a=1]

S5b. Which of the following best describes your race? Please stop me when I reach the right one.

- 1. White or Caucasian
- 2. Black or African American
- 3. American Indian or Alaskan Native
- 4. Chinese



5. Korean
6. Vietnamese
7. Japanese
8. Filipino
9. Native Hawaiian
10. Guamanian or Chamorro
11. Samoan
12. Other Asian
13. Other Pacific islander
00. Other. Specify
99. (Refused)

S6. What is the primary language spoken in your home?

1. (English)
2. (Spanish)
3. (Mandarin)
4. (Cantonese)
5. (Tagalog)
6. (Korean)
7. (Vietnamese)
8. (Russian)
9. (Japanese)
00. (Other, please specify) \_\_\_\_\_
99. (Refused)

S6b. Do you rent or own your home?

1. (Rent)
2. (Own)
00. Other. Specify [THANK AND TERMINATE]
99. (Refused) [THANK AND TERMINATE]

S7. In what year were you born?

[NUMERIC OPEN END, 1910 - 1994, 9999=REFUSED]

[GENERATE AGE VARIABLE:

1. 21 to 24 yrs: S7=1988-1991
2. 25 to 34 yrs: S7=1978-1987
3. 35 to 44 yrs: S7=1968-1977
4. 45 to 54 yrs: S7=1958-1967
5. 55 to 64 yrs: S7=1948-1957
6. 65 years and over: S7=1910-1947
9. Less than 21, disqualified: S7=1992-1994]

[THANK AND TERMINATE IF AGE=9]

S8. What is the highest level of education you have completed? [DO NOT READ]

1. No schooling completed



2. 8th grade or less
3. Some high school, no diploma
4. High school diploma
5. GED or alternative credential
6. Some college, less than 1 year, no degree
7. Some college, 1 or more years, no degree
8. Associate's degree
9. Bachelor's degree
10. Master's degree
11. Professional school degree
12. Doctorate degree
98. (Refused) [THANK AND TERMINATE]

### **Energy Upgrade California Awareness – Top of Mind & Semi-Unaided**

Ok. The next few questions are about your awareness of some initiatives taking place in California.

A1. What brands, campaigns or initiatives have you heard of in the last year that encourage people to save energy in California? (DO NOT READ) [PROBE FOR UP TO 3 RESPONSES: Anything else?]

1. (Energy Upgrade California)
2. (ENERGY STAR®)
3. (Flex Your Power)
4. (LEED)
5. (Engage 360)
6. (Flex Alert)
7. (Reduce Your Use)
8. (Go Solar California)
9. (Energy Save It)
10. (Click it or Ticket)
96. (None)
00. (Other, specify \_\_\_\_\_)
98. Don't know
99. Refused

TA3. I'm going to read several brands, campaigns or initiatives. For each, please tell me if you have heard of it.

1. (CONTINUE)

[RANDOMIZE ORDER OR QA3A-QA3F]

[SKIP IF A1=8] A3a. Have you heard of... Go Solar California?

1. Yes
2. No
8. (Don't Know)
9. (Refused)

[SKIP IF A1=2] A3b. Have you heard of... ENERGY STAR®?

1. Yes
2. No
8. (Don't Know)
9. (Refused)

A3c. Have you heard of... Energy Upgrade California?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[SKIP IF A1=9] A3d. Have you heard of... ENERGY SAVE IT?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[SKIP IF A1=3] A3e. Have you heard of... FLEX YOUR POWER?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[SKIP IF A1=10] A3f. Have you heard of... CLICK IT OR TICKET?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[ASK IF QA3c=1]

A4. On a scale from 1 to 7, where "1" means "I have only heard the name" and "7" means "I know a lot about it", how familiar are you with the Energy Upgrade California initiative?

- 1. -1- I have only heard the name
- 2. -2-
- 3. -3-
- 4. -4-
- 5. -5-
- 6. -6-
- 7. -7- I know a lot about it
- 8. (Don't know)
- 9. (Refused)

## **Energy Upgrade California Knowledge & Associations**

K1. What do you think of when you hear the phrase "Energy Upgrade California"? [IF QA3C<>1:PROBE: Anything else?; IF QA3C=1: PROBE: Anything else that you may have seen or heard?]

00. [OPEN END]

- 98. (Don't know/Not sure)
- 99. (Refused)

K2. Have you ever seen the Energy Upgrade California logo? It is blue and teal, displays the words "Energy Upgrade California", and has a silhouette of a house and a leaf.

- 1. Yes
- 2. No

- 8. (Don't know/Not sure)
- 9. (Refused)

[ASK IF A3c=1 OR K2=1]

K3a. Which of the following do you MOST associate with Energy Upgrade California? [ROTATE OPTIONS 1-3]

- 1. A program that encourages customers to make energy efficient improvements to their home
- 2. A utility rebate program
- 3. A statewide resource for energy management information
- 00. Or something else [Specify]
- 98. (Don't know)
- 99. (Refused)

[ASK IF (A3c =2, 8, OR 9) AND (K2=2, 8 OR 9)]

K3b. While you may not have heard the phrase, which of the following would you MOST associate with Energy Upgrade California? [ROTATE OPTIONS 1-3]

- 1. A program that encourages customers to make energy efficient improvements to their home
- 2. A utility rebate program
- 3. A statewide resource for energy management information
- 00. Or something else [Specify]
- 98. (Don't know)
- 99. (Refused)

[ASK TK5A through K5AG IF A3c=1 OR K2=1]

TK5a. Based on what you may have seen or heard about Energy Upgrade California, please tell me if the following describes what you know about it.

- 1. (CONTINUE)

[ROTATE ORDER of K5aa to K5ag]

K5aa. It... Promotes making energy efficiency upgrades in your home, like installing insulation and making HVAC systems more efficient. (IF NEEDED: Does this describe what you know about Energy Upgrade California?)

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

K5ab. It... Provides information on how to curb climate change. (IF NEEDED: Does this describe what you know about Energy Upgrade California?)

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

K5ac. It... Provides information about how to manage energy use. (IF NEEDED: Does this describe what you know about Energy Upgrade California?)

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

K5ad. It... Encourages people to limit energy usage during certain times of the day or year. (IF NEEDED: Does this describe what you know about Energy Upgrade California?)

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

K5ae. It... Provides information on renewable energy such as solar or wind. (IF NEEDED: Does this describe what you know about Energy Upgrade California?)

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

K5af. It... Informs people of rebates for Energy Star appliances. (IF NEEDED: Does this describe what you know about Energy Upgrade California?)

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

### **Awareness/Attitudes – General**

AG1. California has set goals to reduce the entire State's energy use by 2020. Were you aware of these goals?

- 1. Yes
- 2. No
- 8. Don't Know
- 9. Refused

AG2 . How important would you say energy efficiency is in the way it affects your daily purchase choices and activities? Would you say it's...?

- 1. Very unimportant
- 2. Unimportant
- 3. (Neither unimportant nor important)
- 4. Important
- 5. Very important
- 8. (Don't Know)
- 9. (Refused)

### **Knowledge / Energy Management Concepts**

E1. What does energy management mean to you? [PROBE: Anything else come to mind?]

00. [OPEN END]

- 98. (Don't know/Not sure)
- 99. (Refused)

TE2. For the purpose of this survey, we are defining energy management as the ways that people can monitor and control energy use. This can include using energy when it is less expensive, investing in energy efficient home improvements, turning off lights when not needed, and using alternative

energy such as solar. Given this definition of energy management, on a scale of 1 to 7 where 1 is “strongly disagree” and 7 is “strongly agree,” please tell me how much you agree or disagree with the following statements:

1. (CONTINUE)

[ROTATE E2a-E2d]

E2c. When I want to learn more about Energy Management, it is easy for me to find information (IF NEEDED: How much do you agree or disagree with this statement?)

1. -1- Strongly disagree
2. -2-
3. -3-
4. -4-
5. -5-
6. -6-
7. -7- Strongly agree
8. (Don't know)
9. (Refused)

E2d. Energy Management helps save money on monthly energy bills (IF NEEDED: How much do you agree or disagree with this statement?)

1. -1- Strongly disagree
2. -2-
3. -3-
4. -4-
5. -5-
6. -6-
7. -7- Strongly agree
8. (Don't know)
9. (Refused)

TE3. Now I have a few questions regarding your awareness of different energy related opportunities.

1. (CONTINUE)

[ROTATE E3a/E4a through E3f/E4f with E3 and E4 grouped together]

E3a. Are you aware of.... Utility payment plans that allow you to pay a lower rate for electricity during early morning and evening hours, and a higher rate during the day?

1. Yes
2. No
8. (Don't Know)
9. (Refused)

[ASK IF E3a=1]

E4a. Would you say that you have - little knowledge, some knowledge, or a lot of knowledge about this?

1. Little knowledge
2. Some knowledge
3. A lot of knowledge about this
8. (Don't know)
9. (Refused)

E3b. Are you aware of.... Communication alerts that ask you to reduce electricity use at critical times like on the hottest summer afternoon?

1. Yes
2. No
8. (Don't Know)
9. (Refused)

[ASK IF E3b=1]

E4b. Would you say that you have - little knowledge, some knowledge, or a lot of knowledge about this?

1. Little knowledge
2. Some knowledge
3. A lot of knowledge about this
8. (Don't know)
9. (Refused)

E3c. Are you aware of.... New meters that allow you to view your home's daily energy use information?

1. Yes
2. No
8. (Don't Know)
9. (Refused)

[ASK IF E3c=1]

E4c. Would you say that you have - little knowledge, some knowledge, or a lot of knowledge about this?

1. Little knowledge
2. Some knowledge
3. A lot of knowledge about this
8. (Don't know)
9. (Refused)

E3d. Are you aware of.... Rebates offered through your utility for energy-related home improvements?

1. Yes
2. No
8. (Don't Know)
9. (Refused)

[ASK IF E3d=1]

E4d. Would you say that you have - little knowledge, some knowledge, or a lot of knowledge about this?

1. Little knowledge
2. Some knowledge
3. A lot of knowledge about this
8. (Don't know)
9. (Refused)

E3e. Are you aware of.... The opportunity to use alternative energy such as solar panels on your roof?

1. Yes

- 2. No
- 8. (Don't Know)
- 9. (Refused)

[ASK IF E3e=1]

E4e. Would you say that you have - little knowledge, some knowledge, or a lot of knowledge about this?

- 1. Little knowledge
- 2. Some knowledge
- 3. A lot of knowledge about this
- 8. (Don't know)
- 9. (Refused)

E3f. Are you aware of.... Online or in-home energy assessments that give recommendations on ways to decrease your energy use?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[ASK IF E3f=1]

E4f. Would you say that you have - little knowledge, some knowledge, or a lot of knowledge about this?

- 1. Little knowledge
- 2. Some knowledge
- 3. A lot of knowledge about this
- 8. (Don't know)
- 9. (Refused)

G5. I am going to read you a list of 6 reasons why people might change their daily actions to save energy. Please tell me which of these would motivate you the MOST. (IF DON'T KNOW please probe "if you had to choose from the following reasons which one would motivate you the most?") [ROTATE OPTIONS 1-6]

- 1. Saving money
- 2. Health
- 3. Protecting the environment
- 4. For the benefit of future generations
- 5. Reducing our dependence on foreign oil
- 6. Helping California lead the way on saving energy
- 8. (Don't know)
- 9. (Refused)

E5. What websites, if any, would you visit to find information on how you can better manage your energy use? [MULT RESPONSE UP TO THREE] (NOTE TO INTERVIEWER: PROBE FOR UP TO THREE INFORMATION RESOURCES: Any others?)

- 1. (Utility Website, PG&E, SCE, SDG&E, SoCalGas, SCG, SMUD, LADWP)
- 2. (Energy Upgrade California Website)
- 3. (Engage 360)
- 4. (Search Engine (i.e., Google, Bing, yahoo))
- 5. (Flex Your Power (FYP) website)

- 6. (Energy Star website)
- 7. (Home improvement retailer website (i.e., Home Depot or Lowe's))
- 00. (Other, specify)
- 96. (None)
- 98. (Don't know)
- 99. (Refused)

[SKIP IF AC3 >1 or E5=2]

E6. Have you ever heard of a website called energyupgradeca.org [INTERVIEWER PRONOUNCE: Energy Upgrade C-A dot org]?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

[ASK IF E5=2 OR E6=1]

E7. Have you visited this website...?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

## Barriers to Action

B1. On a scale of 1 to 7, with 1 being very unlikely and 7 being very likely, how likely are you to look for ways to manage your energy use in the next few months?

- 1. -1- Very unlikely
- 2. -2-
- 3. -3-
- 4. -4-
- 5. -5-
- 6. -6-
- 7. -7- Very likely
- 8. (Don't know)
- 9. (Refused)

[ASK IF B1<7 OR 8]

B2. What are the main reasons for why you would NOT look for ways to better manage your energy use? [MULTIPLE RESPONSE UP TO THREE]

- 1. (Don't know where to go/hard to get information)
- 2. (Too much hassle/not worth my time)
- 3. (What I do isn't going to make a difference)
- 4. (What I do does not make much difference to the environment)
- 5. (I rent)
- 6. (What I do does not make much difference in how much energy is saved.)
- 7. (What I do does not make much difference in how much money I save on my utility bills.
  - 8. (I prefer to spend my money on other things/I have other priorities)
  - 9. (I plan to move/not planning to stay in the home long)
  - 10. (Taking action is too expensive/it costs too much)



- 11. There are others in my home and I cannot control their usage or behaviors
- 12. Others in my home have different opinions/priorities
- 00. (Other, specify \_\_)
- 98. (Don't Know)
- 99. (Refused)

## Segmentation

TG1. We're close to the end of the survey, I have a few more questions. Has your household ever taken the following actions?

1. (CONTINUE)

[ROTATE, G1a through G1e]

G1a. Has your household ever... Installed programmable thermostats in your home?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

G1b. Has your household ever... Installed a vent in your attic area to keep the attic cooler?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

G1c. Has your household ever... Installed ceiling fans?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

G1d. Has your household ever...Received an in-person audit where someone assesses energy use in your home?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

[ASK IF A3c=1]

G1e. Has your household ever...Participated in the Energy Upgrade California whole house retrofit program?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

G2. Has your household ever installed motion detectors for your lights?

- 1. Yes
- 2. No
- 8. (Don't Know)

9. (Refused)

G3. Have you heard of a carbon footprint? (IF NECESSARY: A carbon footprint is a measure of the energy you use throughout your life, either directly or indirectly. This includes but is not limited to the energy consumption from your home, your transportation, your diet, and your purchases).

1. Yes
2. No
8. (Don't know)
9. (Refused)

TG4. On a scale of 1 to 7 where 1 is "strongly disagree" and 7 is "strongly agree," please tell me how much you agree or disagree with the following statements:

1. (CONTINUE)

[ROTATE G4a and G4b]

G4a. I do NOT feel responsible for conserving energy because my personal contribution is very small. (IF NEEDED: How much do you agree or disagree with this statement?)

1. -1- Strongly disagree
2. -2-
3. -3-
4. -4-
5. -5-
6. -6-
7. -7-Strongly agree
8. (Don't know)
9. (Refused)

G4b. I compare prices of at least a few brands before I choose one. (IF NEEDED: How much do you agree or disagree with this statement?)

1. -1- Strongly disagree
2. -2-
3. -3-
4. -4-
5. -5-
6. -6-
7. -7-Strongly agree
8. (Don't know)
9. (Refused)

## Demographics

D1. What is your electric company?

1. 1. (Pacific Gas & Electric/PG&E)
2. 2. (Southern California Edison/Edison/SCE)
3. 3. (San Diego Gas & Electric/SDG&E)
4. 4. (Sacramento Municipal Utility District/SMUD)

5. 5. (Los Angeles Department of Water and Power/LADWP)
6. 00. (Other, specify)
7. 98. (Don't know)
8. 99. (Refused)
- 9.

D2. What is your gas company?

10. 1. (Pacific Gas & Electric/PG&E)
11. 2. (Southern California Gas/SoCalGas/SCG)
12. 3. (San Diego Gas & Electric/SDG&E)
13. 00. (Other, specify)
14. 96. (none / don't have gas)
15. 98. (Don't know)
16. 99. (Refused)

D3. Including you, how many people live in this household year round? [INTERVIEWER IF NEEDED: Do not include anyone who is just visiting or people who live in the home less than nine months out of the year. Include all people whether or not they are related to you.]  
[NUMERIC OPEN END 1-20, 99=Refused]

[SKIP D3a-h if D3=1]

- |  |                                     |
|--|-------------------------------------|
| D3a. How many are.... Less than 18 years old | [NUMERIC OPEN END 0-20, 99=Refused] |
| D3b. How many are.... 18 to 20               | [NUMERIC OPEN END 0-20, 99=Refused] |
| D3c. How many are....21 to 24                | [NUMERIC OPEN END 0-20, 99=Refused] |
| D3d. How many are.... 25 to 34               | [NUMERIC OPEN END 0-20, 99=Refused] |
| D3e. How many are.... 35 to 44               | [NUMERIC OPEN END 0-20, 99=Refused] |
| D3f. How many are....45 to 54                | [NUMERIC OPEN END 0-20, 99=Refused] |
| D3g. How many are....55 to 64                | [NUMERIC OPEN END 0-20, 99=Refused] |
| D3h. How many are....65 or older             | [NUMERIC OPEN END 0-20, 99=Refused] |

D3a9. What was your annual household income from all sources in 2011, before taxes? [READ IF RESPONDENT DOES NOT GIVE YOU A NUMBER: Please stop me when I reach the category that best describes your household's income.]

[IF NECESSARY: This information is confidential and will only be used for the purpose of characterizing study respondents.]

1. Less than \$20,000 per year
2. 20 to less than \$30,000
3. 30 to less than \$40,000
4. 40 to less than \$50,000
5. 50 to less than \$60,000
6. 60 to less than \$75,000
7. 75 to less than \$100,000
8. 100 to less than \$150,000
9. 150 to less than \$200,000
10. \$200,000 or more
99. (Refused)

[ASK IF D4=1]

D4a. Is it...

1. Less than \$10,000, or
2. \$10,000 to less than \$15,000, or
3. \$15,000 to less than \$20,000?

9. (Refused)

[SKIP to P3 if C1=2,8,9]

P1. Does anyone in your household have a working cellular telephone?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[SKIP P2 IF P1=2]

P2. Please consider all of the telephone calls that you and your family receive. Would you say that all or almost all calls are received on cell phones, some are received on cell phones and some on regular landline phones, or would you say very few or no calls are received on cell phones?

- 1. All or almost all calls on cell phones
- 2. Some on cell phones, some on regular landline phones
- 3. Very few or none on cell phones
- 8. (Don't Know)
- 9. (Refused)

[SKIP to I1 if C1=1,8,9]

P3. Does your household have a working landline telephone?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[SKIP P4 IF P3=2]

P4. Please consider all of the telephone calls that you and your family receive. Would you say that all or almost all calls are received on landline phones, some are received on cell phones and some on regular landline phones, or would you say very few or no calls are received on landline phones?

- 1. All or almost all calls on landline phones
- 2. Some on cell phones, some on regular landline phones
- 3. Very few or none on landline phones
- 8. (Don't Know)
- 9. (Refused)

I1. Do you have Internet access in your home?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

S2a. And finally, are you, or is anyone in your household, an employee of... an electric or gas utility, the CA Public Utilities Commission, The CA Energy Commission or the CA Center for Sustainable Energy?

- 1. Yes
- 2. No
- 8. (Don't Know)
- 9. (Refused)

[CREATE DROP VARIABLE IF ANY S2a-d =1]

[VNAME. So that my supervisory may verify that I spoke with you, may I have your name?  
[OPEN END, Refused]

END. Thank you for your time.

## Residential Internet Panel Survey

### Energy Upgrade California Brand Assessment Study Internet Panel Survey

*Reviewer Note: This is an Internet survey for adult California residents. The goal of the survey is to gather information on Energy Upgrade California awareness, perceptions of the Energy Upgrade California logo, and the brand in general. This survey is designed to be approximately 5 minutes in length. At present, it is approximately 6.5 minutes.*

### Introduction

Thank you for agreeing to participate in this online survey. The State of California values your time and feedback.

Please click NEXT to start the survey.

### Screeners

To start, we have a few questions about your home.

S3. In your household, which of the following activities are you involved in?

	Yes 1	No 2
A. Reviewing or paying your monthly electric or natural gas bill.	<input type="checkbox"/>	<input type="checkbox"/>
B. Calling your utility company when there is a problem.	<input type="checkbox"/>	<input type="checkbox"/>
C. Making decisions about buying new appliances or making improvements to your home.	<input type="checkbox"/>	<input type="checkbox"/>
D. Purchasing light bulbs for your home.	<input type="checkbox"/>	<input type="checkbox"/>

[IF ALL S3 A-D=2 THANK AND TERMINATE]

S6. Do you rent or own your home?

1. Rent
2. Own
00. (Other, Specify [THANK AND TERMINATE])

### Energy Upgrade California Awareness

Now we have a few questions about your awareness of some initiatives taking place in California.

- A1. What brands, campaigns or initiatives have you heard of in the last year that encourage people to save energy in California? Please list up to 3 if you can.
00. Enter response in box below

- A3. Please indicate whether you have heard of each of the following brands, campaigns or initiatives. [RANDOMIZE ORDER]

	Yes 1	No 2
A. Go Solar California	<input type="checkbox"/>	<input type="checkbox"/>
B. ENERGY STAR®	<input type="checkbox"/>	<input type="checkbox"/>
C. Energy Upgrade California	<input type="checkbox"/>	<input type="checkbox"/>
D. ENERGY SAVE IT (red herring)	<input type="checkbox"/>	<input type="checkbox"/>
E. FLEX YOUR POWER	<input type="checkbox"/>	<input type="checkbox"/>
F. CLICK IT OR TICKET	<input type="checkbox"/>	<input type="checkbox"/>

[ASK IF A3c=1]

- A4. How familiar are you with the Energy Upgrade California initiative?

I have only heard  
the name

1

2

3

4

5

6

I know a lot  
about it

7

[ASK IF A4>4]

- A6. In general, do you have a very favorable, somewhat favorable, somewhat unfavorable opinion, or a very unfavorable opinion of Energy Upgrade California?
1. Very favorable
  2. Somewhat favorable
  3. Somewhat unfavorable
  4. Very unfavorable

## General Associations

- K1. What do you think of when you hear the phrase “Energy Upgrade California”?

00. Enter response in box below

- K1b. When you hear the phrase ‘Energy Upgrade California’ what do you think is meant by the word “upgrade”?

00. Enter response in box below

## Awareness of Logo and Website

- K2. Have you ever seen the Energy Upgrade California logo? It is blue and teal, displays the words “Energy Upgrade California”, and has a silhouette of a house and a leaf.

1. Yes
2. No

A5. [IF K2=1 “Specifically have you seen this logo?”] [IF K2>1, “Have you seen this logo?”] [DISPLAY Energy Upgrade CaliforniaLOGO.png]

1. Yes
2. No



A7. Ignoring what you may already know about Energy Upgrade California, please provide three words or phrases that come to mind when you look at the Energy Upgrade California logo.  
00. Enter response in box below

A8. Please review the following and then answer a few short questions.

[SHOW Energy Upgrade California BROCHURE]

BEFORE taking this survey, had you seen this brochure?

1. Yes
2. No

[ASK IF A8=2]

A9. Have you seen information or advertisements similar to the brochure shown to you here with the same logo?

1. Yes
2. No

E8. Besides looking for information on websites, what are other ways that you learn about opportunities or products that help you manage your energy use?

00. Enter response in box below

E9. How interested would you be in a statewide resource for information to help you manage your energy use.

1. Very interested
2. Somewhat interested
3. Neither interested or disinterested
4. Somewhat disinterested
5. Not at all interested



## ***Demographics***

S2. Are you, or is anyone in your household, an employee of an electric or gas utility, the CA Public Utilities Commission, the CA Energy Commission or the CA Center for Sustainable Energy?

1. Yes
2. No

[CREATE DROP VARIABLE IF ANY S2=1]

Those are all of the questions we have. Thank you again for participating in this survey.

## Small Business Survey

### Energy Upgrade California Brand Assessment Study Small Commercial Survey

#### Introduction

Hello, my name is \_\_\_\_\_ and I'm calling from Opinion Dynamics and the State of California to conduct a brief survey on behalf of a statewide research initiative on the topic of energy.

May I please speak with the person in your firm who makes decisions for this location regarding energy usage or the purchase of energy using equipment, such as lighting or air conditioning.

(IF NEEDED: This survey should take about 8 minutes)

31. No decisions made at this location

[IF INTO1=31]

S5. Are these decisions made at a corporate headquarters?

1. Yes
2. No
8. (Don't know) [THANK AND TERMINATE]
9. (Refused) [THANK AND TERMINATE]

[ASK IF S5=1,2]

S6. Is <IF S5=1: your headquarters> <IF S5=2: the decision made by someone> in California or another state?

1. California [THANK AND TERMINATE]
2. Another state [THANK AND TERMINATE]
8. (Don't know) [THANK AND TERMINATE]
9. (Refused) [THANK AND TERMINATE]

INT84: TERMINATE BECAUSE "DO NOT MAKE DECISION AT THIS LOCATION"

#### Screener

S1. Do you operate your business in a residential or commercial space?

1. (Residential) [THANK AND TERMINATE]
2. (Commercial)
3. (Both)
00. (Other [SPECIFY])
8. (Don't know)
9. (Refused)

S2. How many people does your company employ at this location? (IF DON'T KNOW, ASK: What would be your best estimate?)

1. (Less than 10)
2. (10 to 24)
3. (25 to 49)
4. (50 to 99)

5. (More than 100) [THANK AND TERMINATE]
8. (Don't know)
9. (Refused)

S3. Our records show that your company is located in the zip code, [ZIP]. Is that correct?

1. Yes
2. No
8. (Don't know)
9. (Refused)

[SKIP IF S3=1]

S3a. What is the zip code where your company is located? [NUMERIC OPEN END]

[CREATE CALCULATION FOR VERIFIED REGION VARIABLE, IF IS NOT WITHIN CALIFORNIA REGION QUOTAS, TERMINATE]

S4. What is your position within the company?

1. (Business owner)
2. (Office manager)
3. (Receptionist)
4. (Facilities/energy manager)
00. (Other, specify)
8. (Don't know)
9. (Refused)

## **Energy Upgrade California Awareness**

Next, I have a few questions about your awareness of some initiatives taking place in California.

A1. What brands, campaigns or initiatives have you heard of in the last year that encourage businesses to reduce energy use in California? (DO NOT READ) [MULTIPLE RESPONSE OF FIVE]

1. (Energy Upgrade California)
2. (Energy Star)
3. (Flex Your Power)
4. (California Solar Initiative)
5. (Cool California)
6. (Savings by Design)
7. (LEED)
8. (Engage 360)
9. (Reduce Your Use)
00. (Other, specify)
96. (None)
98. Don't know
99. Refused

A3. I'm going to read several brands, campaigns or initiatives. For each, please tell me if you have heard of it. Have you heard of... [RANDOMIZE ORDER] [1=Yes, 2= No, 8=(Don't know), 9=(Refused)]

- a) [SKIP IF A1=7] LEED
- b) [SKIP IF A1=1] Energy Upgrade California
- c) **ENERGY SAVE IT (red herring)**
- d) [SKIP IF A1=3] FLEX YOUR POWER

### **Energy Upgrade California Knowledge and Associations**

- K1. What do you think of when you hear the phrase “Energy Upgrade California”? [PROBE for Unaware: Anything else? PROBE for aware: Anything else that you may have seen or heard?]  
[OPEN END]  
00. Please specify in the box below  
96. (Nothing/Never heard of the phrase before)  
98. (Don't know)  
99.(Refused)  
[ASK IF A3b=1 OR A1=1]  
K6. Do you think that Energy Upgrade California offers solutions for business, for home or both?  
1. (Business ONLY)  
2. (Home ONLY)  
3. (Both)  
8. (Don't know)  
9. (Refused)  
K2. Have you ever seen the Energy Upgrade California logo? It is blue and teal, displays the words “Energy Upgrade California”, and has a silhouette of a house and a leaf.  
1. Yes  
2. No  
98. (Don't know)  
99. (Refused)

### **Knowledge & Energy Management Concepts**

- E3. Now I have a few questions regarding your awareness of different energy management opportunities. Are you aware of.... [INSERT A-F AND ROTATE ORDER]....[1=YES, 2=NO, 8=DK, 9=REFUSED]  
[FOR EACH E3A-F, IMMEDIATELY ASK E4 BEFORE ASKING ABOUT THE SECOND CONCEPT]  
E4. [FOR EACH IN A-F THAT ARE AWARE, ASK ...] Would you say that you have - little knowledge, some knowledge, or a lot of knowledge about this?  
a. The option to choose a plan from your utility that allows you to pay a lower rate for electricity during early morning and evening hours, and a higher rate during the day.  
b. Communication alerts that ask you to reduce electricity use at critical times like on the hottest summer afternoon  
c. New meters that allow you to view your business's daily energy use information either through the Internet or a separate device and receive alerts for when you are using more energy than usual.  
d. Rebates offered through your utility for energy efficient equipment or facility improvements  
e. The opportunity to use and sell power generated from solar sources installed on your property.  
f. Business energy assessments, which result in personalized recommendations on ways to decrease your energy use.  
E5. What websites, if any, would you visit to find information on how you can better manage your business's energy use? [MULT RESPONSE] (NOTE TO INTERVIEWER: PROBE FOR UP TO THREE INFORMATION RESOURCES. Any others?)  
1. (Utility Website, PG&E, SCE, SDG&E, SoCalGas, SCG, SMUD, LADWP)

2. (Energy Upgrade California Website)
3. (Engage 360)
4. (Search Engine (i.e., Google, Bing, yahoo))
5. (Flex Your Power (FYP) website)
6. (Energy Star website)
7. (Home improvement retailer website (i.e., Home Depot or Lowe's))
00. (Other, specify)
96. (None)
98. (Don't know)

## **Firmographics**

I just have a few final questions about your company.

F1. Does your company own or lease this facility?

1. (Company owns facility)
2. (Company leases facility )
8. (Don't know)
9. (Refused)

[ASK IF F1<>1, ELSE SKIP TO F3c]

F2. Is your facility managed by a property management firm?

1. (Yes)
2. (No)
8. (Don't Know)
9. (Refused)

F3a. Does your company pay its own electric bill or is it included in your rent?

1. (Company pays own bill)
2. (Bill is included in rent)
8. (Don't know)
9. (Refused)

F3b. How about your gas bill? Does your company pay your own gas bill or is it included in your rent?

1. (Company pays own bill)
2. (Bill is included in rent)
3. (Don't use gas)
8. (Don't know)
9. (Refused)

[SKIP TO F6 IF F1<>1]

F3c. Does your company have gas?

1. (Yes)
2. (No)
8. (Don't Know)
9. (Refused)

F6. What type of business do you operate?

1. (Office)
2. (Retail)
3. (Restaurant)
4. (Healthcare)
5. (Hotel/Motel)
6. (Manufacturing)
7. (Agriculture)

- 8. (College or university)
- 9. (School)
- 10. (Warehouse)
- 11. (Hospital)
- 12. (Industrial processing/manufacturing)
- 13. (Grocery)
- 14. (Food processing)
- 15. (Construction)
- 16. (Property management)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

*Those are all of the questions we have for you. Thank you for your participation.*

## Contractor Survey

### Energy Upgrade California Brand Assessment Study Contractor Survey

#### Introduction Survey Start

Hello, my name is \_\_\_\_\_ and I'm calling from Opinion Dynamics to offer \$50 in return for a brief telephone survey on behalf of a statewide research initiative on the topic of energy. May I please speak with [<CONTACT>, or] the owner or manager?

[IF NOT AVAILABLE]

If they are not available, could I speak with someone else who is most knowledgeable about your business? [IF NEEDED: Perhaps a manager, owner or one of your employees who provides services to customers]

[IF NO, THANK AND RESCHEDULE/TERMINATE]

Your feedback will greatly help the State of California and your responses will be kept completely anonymous.

Do you have a few minutes?

(IF NEEDED: should take about 10 minutes.)

[IF NO, THANK AND RESCHEDULE/TERMINATE]

#### Screeners

S1. The first three questions are to see if you qualify for the survey.

What is your title or position at your company?

1. (Owner)
2. (Manager)
3. (Office Administrator)
4. (Sales)
5. (Field supervisor)
6. (Field technician)
7. (Installer)
00. (Other, specify)
96. (None)
98. (Don't know)

S2. How many employees does your company have that serve... [NUMERIC OPEN END, 998=Don't know, 999= Refused]

- a. . . . San Diego or Imperial Counties?
- b. . . . Orange, Los Angeles, Ventura, Riverside, San Bernardino or Santa Barbara counties?
- c. . . . Northern California, anywhere north of Santa Barbara?

S3. Which of the following types of customers does your company serve? Do you serve... [1=YES, 2=NO]

- a. Residential customers
- b. Commercial customers
- c. Industrial customers

[IF S2A THRU C = 0, 998, OR 999 OR IF S3a=2,8,9 THANK AND TERMINATE]

## **Energy Upgrade California Awareness & Associations**

A1. Thank you. It looks like you do qualify for the survey. We will begin now.

I'm going to list several brands, campaigns or initiatives. For each, please tell me if you have heard of it. [RANDOMIZE] [1=YES, 2=NO, 98=DK, 99=REF]

- a. Go Solar California
- b. ENERGY STAR®
- c. Energy Upgrade California
- d. ENERGY SAVE IT
- e. FLEX YOUR POWER
- f. CLICK IT OR TICKET

[IF A1c=1]

A2. On a scale from 1 to 7, where 1 means "I have only heard the name" and 7 means "I know a lot about it", how familiar are you with Energy Upgrade California? [1-7, 98=DK, 99=REF]

## **Energy Upgrade California Knowledge & Associations**

K1. What do you think of when you hear the phrase "Energy Upgrade California"? [PROBE for Unaware: Anything else? PROBE for aware: Anything else that you may have seen or heard?] [OPEN END, 98=DK, 99=REF]

[ASK IF A1c=1]

K2. I'm going to ask a few questions that deal with the concept of energy management. For the purpose of this survey, we are defining energy management as the ways that people can monitor and control energy use. This can include using energy when it is less expensive, investing in energy efficient home improvements, turning off lights when not needed, and using alternative energy such as solar.

Which of the following do you MOST associate with Energy Upgrade California? [ROTATE]

1. A program that encourages customers to make energy efficient improvements to their home
2. A utility rebate program
3. A statewide resource for energy management information
00. Or something else [Specify]
98. (Don't know)
99. (Refused)

[ASK IF A1c >1]

K3. I'm going to ask a few questions that deal with the concept of energy management. For the purpose of this survey, we are defining energy management as the ways that people can monitor and control energy use. This can include using energy when it is less expensive, investing in energy efficient home improvements, turning off lights when not needed, and using alternative energy such as solar.



While you may not have heard the phrase, which of the following would you MOST associate with Energy Upgrade California? **[ROTATE]**

1. A program that encourages customers to make energy efficient improvements to their home
2. A utility rebate program
3. A statewide resource for energy management information.
4. Or something else [Specify]
98. (Don't know)
99. (Refused)

[ASK IF A1c=1]

K4. Based on what you may have seen or heard about Energy Upgrade California, please tell me if the following describes what you know about it. It... [ROTATE ORDER] [1=YES, 2=NO, 98=DK, 99=REF]

- a. Promotes making residential energy efficiency upgrades, like installing insulation and making HVAC systems more efficient.
- b. Provides information on how to curb climate change.
- c. Provides information about how to manage energy use.
- d. Encourages people to limit energy usage during certain times of the day or year.
- e. Provides information on renewable energy such as solar or wind.
- f. Informs people of rebates for Energy Star appliances.

K5. The name "Energy Upgrade California" was used to market a program designed to assist homeowners in making energy efficiency improvements to their homes. In 2013, Energy Upgrade California will launch a marketing and education campaign to promote a wide variety of programs, products and services to help Californians manage their energy use. Would your business benefit from this type of customer education and outreach?? [1=YES, 2=NO, 98=DK, 99=REF]

[ASK IF K5=1]

K5a. Why would this be helpful to your business or customer interactions? [OPEN END, 98=DK, 99=REF]

[ASK IF K5=2]

K5b. Why would this not be helpful to your business or customer interactions? [OPEN END, 98=DK, 99=REF]

[ASK IF A1c=1]

K6. On a 7-point scale, where 1 is "strongly disagree" and 7 is "strongly agree", please tell me how much you agree or disagree with the following statements: (REPEAT SCALE AS NECESSARY)

[FOR EACH, ASK IF K5a-c<6]

K7. Why did you give it that rating [OPEN END, 98=DK, 99=REF]

- a. Using the Energy Upgrade California brand is an easy way to market energy efficient services to customers
- c. The Energy Upgrade California brand is useful for educating customers about energy management

[ASK IF A1c=1]

K8. Do your customers typically view Energy Upgrade California only as a rebate program for building envelope efficiency, or something more?

1. Only as a rebate program for Whole-house retrofits
2. Something more
98. (Don't know)
99. (Refused)

[ASK IF K8>1]

K9. What else do your customers typically associate with Energy Upgrade California? [OPEN END, 98=DK, 99=REF]

K10. California has set goals to reduce the State's energy use by the year 2020. Before this call, were you aware of these goals?

1. Yes
2. No
98. (Don't know)
99. (Refused)

## Whole House Participation

[ASK IF A1c=1]

WH1. Have you attended training for, or applied to participate in, the Energy Upgrade California Whole House program?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[ASK IF WH1=1]

WH2. Have you been approved as a participating contractor?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[ASK IF WH2=1]

WH3. About how many Energy Upgrade California Whole House projects has your company completed in the last year? Is it...(IF NEEDED: Your best estimate is fine.)

1. None
2. 1 to 5
3. 6 to 10
4. or more than 10?
98. (Don't know)
99. (Refused)

[CALCULATE VARIABLE "WH\_Participation"

IF WH3=3 OR 4, THEN WH\_Participation="High Volume"

IF WH3=2, THEN WH\_Participation="Low Volume"

IF WH3=1, 98, or 99 THEN WH\_Participation="Inactive"

IF WH1=1 AND WH2>1, THEN WH\_Participation="Non-approved"

IF WH1>1, THEN WH\_Participation="Non-participating"]

## Website

AC1. Have you ever heard of a website called energyupgradeca.org [INTERVIEWER PRONOUNCE: Energy Upgrade C-A dot org]?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[ASK IF AC1=1]

AC2. On a scale of 1 to 7 where 1 is "Never" and 7 is "Every time," how often do *you* refer customers to the Energy Upgrade California (Energy Upgrade California) website? [RECORD NUMBER 1 - 7, 8= (Don't know), 9=(Refused)]

[ASK IF AC2=1]

AC2a. Why do you never refer customers to the Energy Upgrade California website? [OPEN END]

AC3. On a scale of 1 to 7 where 1 is "Never" and 7 is "Every time," how often do *customers* ask for a *any* website that can provide them with additional information on saving energy and other energy management options? [RECORD NUMBER 1 - 7, 98= (Don't know), 99=(Refused)]

[ASK IF AC3>1 but not 98 or 99]

AC4. When they do, which website do you refer your customers to most often?

1. (Utility Website, PG&E, SCE, SDG&E, SoCalGas, SCG, SMUD, LADWP)
2. (Energy Upgrade California Website)
3. (Engage 360)
4. (Search Engine (i.e., Google, Bing, Yahoo))
5. (Flex Your Power (FYP) website)
6. (Energy Star website)
7. (Home improvement retailer website (i.e., Home Depot or Lowe's))
00. (Other, specify)
96. (None)
98. (Don't know)

## Marketing

[ASK IF A1c=1, ELSE SKIP TO F1]]

M1. Has your company been using the Energy Upgrade California name or brand in your marketing & sales?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[ASK IF M1=2]

M1a. Why not?

[ASK IF M1=1]

M2. What are some ways in which you have been using the Energy Upgrade California name in your marketing & sales? [OPEN-END, MULTIPLE RESPONSE]  
(NOTE: Record answer as a verbatim))

- 98. (Don't know)
- 99. (Refused)

M3. On a scale of 1 to 7, where 1 is "not at all helpful" and 7 is "extremely helpful", how helpful is the Energy Upgrade California in getting projects? [RECORD NUMBER 1 - 7, 8= (DON'T KNOW), 9= (REFUSED)]

[ASK IF M3>4 BUT NOT 8 OR 9]

M4. What specific aspects of the Energy Upgrade California brand have been helpful? [MULTIPLE RESPONSE, SELECT UP TO 3]

- 1. (Rebates - HVAC)
- 2. (Rebates - Insulation)
- 3. (Rebates - Weatherization)
- 4. (Rebates - Other)
- 5. ("Whole house" approach)
- 6. (Marketing done by the program itself)
- 7. (The program website)
- 8. (Marketing materials)
- 9. (Public event appearances facilitated by the program)
- 00. (Other [Specify])
- 98. (Don't know)
- 99. (Refused)

[ASK IF M3<5]

M5. Why is it not helpful? [OPEN END, 98=DK, 99=REF]

## **Firmographics**

F1. I'm going to read a list of services that your company might supply to customers. Tell me if you provide each of these: [1=YES, 2=NO, 98= Don't know, 99= Refused]

- a. HVAC installation or maintenance services
- b. Building audits and testing
- c. Windows
- d. Insulation
- e. Home remodeling
- f. New home construction
- g. Solar
- h. Any other major services that I didn't mention [Specify]

F2. Is your company accredited by BPI? (IF NEEDED: "BPI" stands for Building Performance Institute)  
(NOTE FOR INTERVIEWER: "BPI accredited" is different than "BPI Certified")

- 1. Yes
- 2. No
- 98. (Don't know)
- 99. (Refused)

F4. About how many customers does your company normally serve per year? [RECORD NUMBER, 9998=Don't know, 9999=Refused]

F4a. Would you like to receive the \$50 check or donate the \$50 to the Red Cross?

1. (Respondent will receive check) [SKIP TO F5A]
2. (Donate to Red Cross) [SKIP TO F4AA]
9. (Refused check) [SKIP TO CLOSING]

F4aa. What name would you like to appear on the check to the red cross? [OPEN END, 96: no name on check]

[IF F4a=2, SKIP TO CLOSE]

F5a. Finally, I'd like to get the following mailing address and information for the \$50 check. (If needed: This information will only be used to mail your check and will remain confidential)

(IF CUSTOMER REFUSES TO ANSWER ANYTHING PLEASE WRITE "REFUSED" AS THE ANSWER.

Who should we make the check out to?

- b. What is the street address?
- c. What city?
- d. State?
- e. Zip code?

[ONLY IN PHONE SURVEY]

F6. Alright, I have...

<F5a> at

<F5b>

<F5c>, <F5d> <F5e>

Is this correct? (if not, go back and correct address)

1. Yes
2. No

Thank you for your time today. We will mail your check within 4 weeks. Have a good day.